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WASTEWATER ENGINEERING AND MANAGEMENT PLAN FOR BOSTON HARBOR - --ETC(U)
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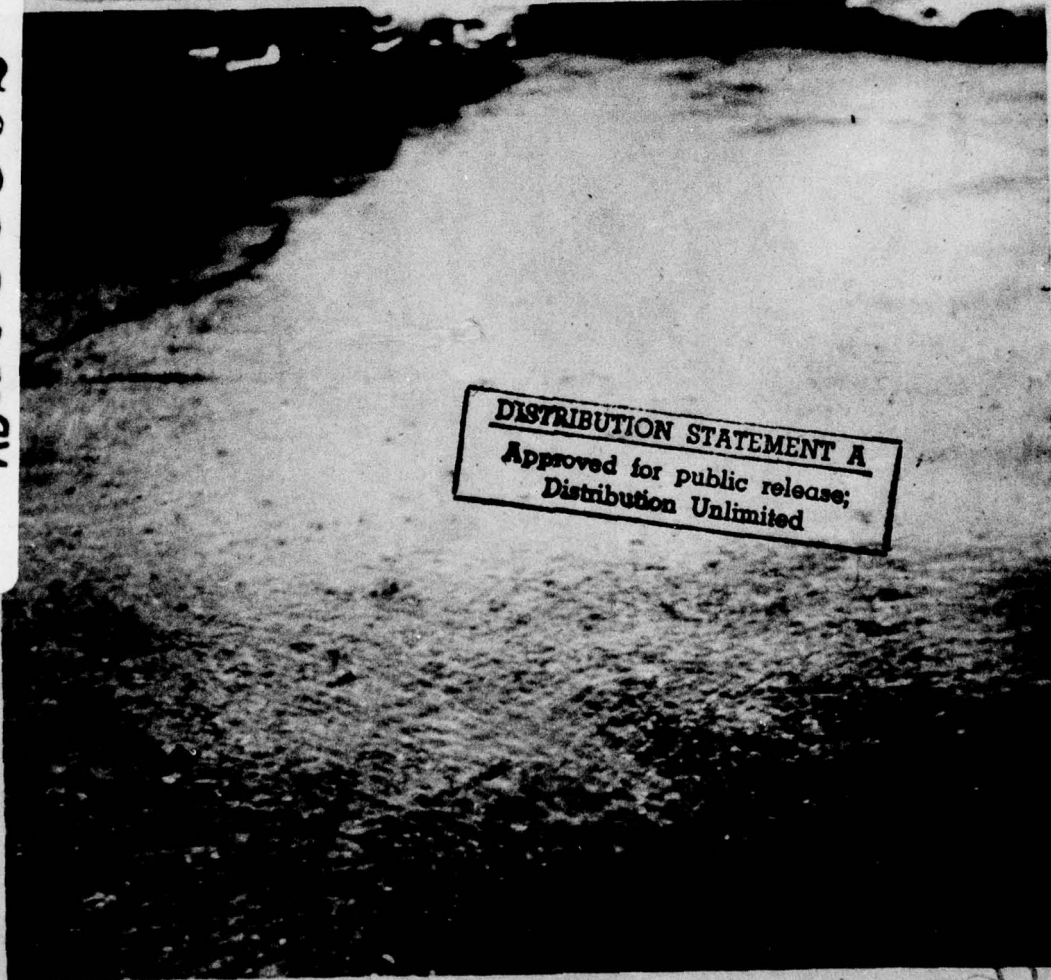
⑥ **WASTEWATER ENGINEERING
AND MANAGEMENT PLAN**

FOR

**BOSTON HARBOR - EASTERN MASSACHUSETTS METROPOLITAN AREA
EMMA STUDY.**

TECHNICAL DATA ~~Volume~~ ^{Volume} 8A.
APPENDIX TO URBAN STORMWATER MANAGEMENT.

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WASTEWATER ENGINEERING
AND MANAGEMENT PLAN
FOR
Boston Harbor - Eastern Massachusetts Metropolitan Area
EMMA STUDY

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PREFACE

→ **CONTENTS:** The Stormwater Management Summary data presented in this appendix is arranged in alphabetical order both by river basin or drainage area, and by community within each area. All data pertains to the design year 2000.

→ Urban Drainage Area denotes the total urban area of the community that is to be utilized for residential, commercial, and industrial purposes by the year 2000. It also includes open urban land.

→ Total Storm Runoff Volume is the total volume of stormwater runoff at the point of treatment in million gallons.

→ Total Stormwater Pollutants are the total pounds of pollutants transported by the storm runoff before treatment. Data is presented for Settleable Solids, Suspended Solids, and 5-day Biochemical Oxygen Demand (BOD).

→ and Stormwater Treatment provides information regarding the type of treatment to be employed, the volume of stormwater to be treated in million gallons, and the percent of stormwater that receives treatment in relation to the total stormwater runoff volume. Treatment is indicated as follows:

NT = No treatment is employed

SP = Stormwater is to be stored and pumped to existing waste treatment facilities.

SMD = Stormwater is to be stored and subsequently treated by microstraining and disinfection.

MD = Stormwater is to be treated by high rate microstraining and disinfection.

Pollutant Removals indicates the pounds of Settleable Solids, Suspended Solids, and BOD that are removed by the treatment indicated.

Pollutants Discharged indicates the pounds of Settleable Solids, Suspended Solids, and BOD not removed by treatment which will be discharged to the receiving body.

Average Pollutant Concentrations Before Treatment indicates the average concentrations of Settleable Solids, Suspended Solids and BOD that would be present in the Stormwater Runoff if the pollutants were uniformly concentrated throughout the entire Stormwater Runoff volume.

Average Pollutant Concentrations After Treatment indicates the average concentrations of Settleable Solids, Suspended Solids, and BOD that would be present in the entire Stormwater Runoff Volume after treatment.

Total Capital Cost is the total cost of installing treatment facilities excluding land costs.

Annual O & M Cost is the annual cost of operating and maintaining the treatment facility.

Suspended Solids + BOD₅ Before Treatment is the sum of the two pollutants in pounds before treatment. The pounds of pollutants removed likewise refers to the sum of the two parameters. Percent removed indicates removal on a combined basis.

Capital Cost/% Removal gives a measure of the efficiency of capital spending in achieving a unit of treatment efficiency.

Treatment Cost (\$/1000 gal) represents the capitalized treatment cost for each 1000 gallons of stormwater treated.

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STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN ACTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	6674

TOTAL STORM RUNOFF VOL.

MIL. GAL.	254.3
-----------	-------

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	3477
SUSP. SOLIDS, LBS.	40832
BOD ₅	6000

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	174.3	174.3
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	3303.2	3303.2
SUSP. SOLIDS, LBS.	36748.8	26540.8
BOD ₅ , LBS.	5100	2400

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	173.8	173.8
SUSP. SOLIDS, LBS.	4083.2	14291.2
BOD ₅ , LBS.	900	3600

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.6	1.6
SUSP. SOLIDS mg/l	19.2	19.2
BOD ₅ mg/l	2.8	2.8

AFTER TREATMENT

SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	1.9	6.7
BOD ₅ mg/l	0.4	1.7

TOTAL CAPITAL COST (\$)

3,250,000	6,000,000
-----------	-----------

ANNUAL O&M COST (\$)

130,000	410,000
---------	---------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	46832	46832
REMOVED, LBS.	41848.8	28940.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

36,400	97,100
--------	--------

TREATMENT COST (¢/1000 gals)

8.3	19.8
-----	------

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN BERLIN

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1610

TOTAL STORM RUNOFF VOL.

MIL. GAL. 45.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 390

SUSP. SOLIDS, LBS. 4645

BOD₅ 683

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

31.2

31.2

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

370.6

370.6

SUSP. SOLIDS, LBS.

4180.5

3019.2

BOD₅, LBS.

580.5

273.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

19.4

19.4

SUSP. SOLIDS, LBS.

464.5

1625.8

BOD₅, LBS.

102.5

409.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.0

1.0

SUSP. SOLIDS mg/l

12.2

12.2

BOD₅ mg/l

1.8

1.8

AFTER TREATMENT

SETT. SOLIDS mg/l

0.05

0.05

SUSP. SOLIDS mg/l

1.2

4.3

BOD₅ mg/l

0.3

1.1

TOTAL CAPITAL COST (\$)

850,000

2,250,000

ANNUAL O&M COST (\$)

23,000

80,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

5328

5328

REMOVED, LBS.

4761

3292.4

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

9,500

36,400

TREATMENT COST (¢/1000 gals)

11.0

30.0

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN	BOLTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1341	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	41.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	597	
SUSP. SOLIDS, LBS.	7140	
BOD ₅	1051	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	28.1	28.1
% TREATED	68.5	68.5
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	567.2	567.2
SUSP. SOLIDS, LBS.	6426	4641
BOD ₅ , LBS.	893.4	420.4
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	29.8	29.8
SUSP. SOLIDS, LBS.	714	2499
BOD ₅ , LBS.	157.6	630.6
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	20.9	20.9
BOD ₅ mg/l	3.1	3.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.1	7.3
BOD ₅ mg/l	0.5	1.8
TOTAL CAPITAL COST (\$)	760,000	2,150,000
ANNUAL O&M COST (\$)	21,000	70,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	8191	8191
REMOVED, LBS.	7319.4	5061.4
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	8,500	34,800
TREATMENT COST (¢/1000 gals)	11.3	31.5

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN BOXBOROUGH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 696

TOTAL STORM RUNOFF VOL.

MIL. GAL. 19.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 202

SUSP. SOLIDS, LBS. 2407

BOD₅ 354

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

13.3

13.3

% TREATED

68.9

68.9

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

191.9

191.9

SUSP. SOLIDS, LBS.

2166.3

1564.5

BOD₅, LBS.

300.9

141.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

10.1

10.1

SUSP. SOLIDS, LBS.

240.7

842.5

BOD₅, LBS.

53.1

212.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.3

1.3

SUSP. SOLIDS mg/l

15.0

15.0

BOD₅ mg/l

2.2

2.2

AFTER TREATMENT

SETT. SOLIDS mg/l

0.06

0.06

SUSP. SOLIDS mg/l

1.5

5.2

BOD₅ mg/l

0.3

1.3

TOTAL CAPITAL COST (\$)

480,000

1,500,000

ANNUAL O&M COST (\$)

10,000

35,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

2761

2761

REMOVED, LBS.

2467.2

1706.1

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

5,400

24,300

TREATMENT COST (¢/1000 gals)

13.6

44.6

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN BOYLSTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 291

TOTAL STORM RUNOFF VOL.

MIL. GAL. 6.4

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 48

SUSP. SOLIDS, LBS. 574

BOD₅ 84

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

SMD

VOLUME TREAT., MG

-

4.4

4.4

% TREATED

-

68.8

68.8

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

45.6

45.6

SUSP. SOLIDS, LBS.

-

516.6

373.1

BOD₅, LBS.

-

71.4

33.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

48

2.4

2.4

SUSP. SOLIDS, LBS.

574

57.4

200.9

BOD₅, LBS.

84

12.6

50.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

0.9

0.9

0.9

SUSP. SOLIDS mg/l

10.8

10.8

10.8

BOD₅ mg/l

1.6

1.6

1.6

AFTER TREATMENT

SETT. SOLIDS mg/l

0.9

0.04

0.04

SUSP. SOLIDS mg/l

10.8

1.1

3.8

BOD₅ mg/l

1.6

0.2

0.9

TOTAL CAPITAL COST (\$)

-

200,000

900,000

ANNUAL O&M COST (\$)

-

5,000

10,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

658

658

658

REMOVED, LBS.

-

588.0

406.7

% REMOVED

-

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

-

2,200

14,600

TREATMENT COST (¢/1000 gals)

-

16.5

71.0

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN CARLISLE

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1309

TOTAL STORM RUNOFF VOL.

MIL. GAL.	34.1
-----------	------

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	252
SUSP. SOLIDS, LBS.	3028
BOD ₅	445

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	23.3	23.3
% TREATED	68.3	68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	239.4	239.4
SUSP. SOLIDS, LBS.	2725.2	1968.2
BOD ₅ , LBS.	378.2	178

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	12.6	12.6
SUSP. SOLIDS, LBS.	302.8	1059.8
BOD ₅ , LBS.	66.8	267

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	0.9	0.9
SUSP. SOLIDS mg/l	10.6	10.6
BOD ₅ mg/l	1.6	1.6

AFTER TREATMENT

SETT. SOLIDS mg/l	0.04	0.04
SUSP. SOLIDS mg/l	1.1	3.7
BOD ₅ mg/l	0.2	0.9

TOTAL CAPITAL COST (\$)

700,000	1,950,000
---------	-----------

ANNUAL O&M COST (\$)

18,000	55,000
--------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	3473	3473
REMOVED, LBS.	3103.4	2146.2
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

7,800	31,600
-------	--------

TREATMENT COST (¢/1000 gals)

11.9	34.0
------	------

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN CLINTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 225

TOTAL STORM RUNOFF VOL.

MIL. GAL. 5.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 40

SUSP. SOLIDS, LBS. 487

BOD₅ 72

STORMWATER TREATMENT

TREAT. DESCRIP. NT SP SMD

VOLUME TREAT., MG - 3.7 3.7

% TREATED - 67.3 67.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. - 38 38

SUSP. SOLIDS, LBS. - 438.3 316.6

BOD₅, LBS. - 61.2 28.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 40 2 2

SUSP. SOLIDS, LBS. 487 48.7 170.4

BOD₅, LBS. 72 10.8 43.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 0.9 0.9 0.9

SUSP. SOLIDS mg/l 10.6 10.6 10.6

BOD₅ mg/l 1.6 1.6 1.6

AFTER TREATMENT

SETT. SOLIDS mg/l 0.9 0.04 0.04

SUSP. SOLIDS mg/l 10.6 1.1 3.7

BOD₅ mg/l 1.6 0.2 0.9

TOTAL CAPITAL COST (\$)

- 190,000 800,000

ANNUAL O&M COST (\$)

- 4,000 10,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 559 559 559

REMOVED, LBS. - 499.5 345.4

% REMOVED - 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

- 2,100 12,900

TREATMENT COST (¢/1000 gals)

- 20.4 76.0

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN CONCORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1658

TOTAL STORM RUNOFF VOL.

MIL. GAL. 52.4

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 781

SUSP. SOLIDS, LBS. 9320

BOD₅ 1371

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

35.9

35.9

% TREATED

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

742

742

SUSP. SOLIDS, LBS.

8388

6058

BOD₅, LBS.

1165.4

548.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

39

39

SUSP. SOLIDS, LBS.

932

3262

BOD₅, LBS.

205.6

822.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.8

1.8

SUSP. SOLIDS mg/l

21.3

21.3

BOD₅ mg/l

3.1

3.1

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

SUSP. SOLIDS mg/l

2.1

7.5

BOD₅ mg/l

0.5

1.9

TOTAL CAPITAL COST (\$)

925,000

2,350,000

ANNUAL O&M COST (\$)

26,000

85,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

10691

10691

REMOVED, LBS.

9553.4

6606.4

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

10,300

38,000

TREATMENT COST (¢/1000 gals)

10.8

29.0

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN GRAFTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	178

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	5.5

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	57
SUSP. SOLIDS, LBS.	681
BOD ₅	100

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP
VOLUME TREAT., MG	-	3.8
% TREATED	-	69.1

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	54.2
SUSP. SOLIDS, LBS.	-	612.9
BOD ₅ , LBS.	-	85

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	51	2.8
SUSP. SOLIDS, LBS.	681	68.1
BOD ₅ , LBS.	100	15

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	1.2
SUSP. SOLIDS mg/l	14.8	14.8
BOD ₅ mg/l	2.2	2.2
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.2	0.06
SUSP. SOLIDS mg/l	14.8	1.5
BOD ₅ mg/l	2.2	0.3

TOTAL CAPITAL COST (\$)	-	190,000
ANNUAL O&M COST (\$)	-	4,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	781	781
REMOVED, LBS.	-	697.9
% REMOVED	-	89.4

CAPITAL COSTS/% REMOVAL (\$)	-	2100
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TREATMENT COST (\$/1000 gals)	-	20.4
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STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN HARVARD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 218

TOTAL STORM RUNOFF VOL.

MIL. GAL. 4.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 36

SUSP. SOLIDS, LBS. 430

BOD₅ 63

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

SMD

VOLUME TREAT., MG

-

3.3

3.3

% TREATED

-

76.7

76.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

34.2

34.2

SUSP. SOLIDS, LBS.

-

387

279.5

BOD₅, LBS.

-

53.6

25.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

36

1.8

1.8

SUSP. SOLIDS, LBS.

430

43

150.5

BOD₅, LBS.

63

9.4

37.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.0

1.0

1.0

SUSP. SOLIDS mg/l

12.0

12.0

12.0

BOD₅ mg/l

1.8

1.8

1.8

AFTER TREATMENT

SETT. SOLIDS mg/l

1.0

0.05

0.05

SUSP. SOLIDS mg/l

12.0

1.2

4.2

BOD₅ mg/l

1.8

0.3

1.1

TOTAL CAPITAL COST (\$)

-

190,000

750,000

ANNUAL O&M COST (\$)

-

4,000

9,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

493

493

493

REMOVED, LBS.

-

440.6

304.7

% REMOVED

-

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

-

2,100

12,100

TREATMENT COST (¢/1000 gals)

-

22.2

79.5

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN HUDSON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2970

TOTAL STORM RUNOFF VOL.

MIL. GAL. 87.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1074

SUSP. SOLIDS, LBS. 12788

BOD₅ 1880

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

60.2

60.2

% TREATED

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1020.3

1020.3

SUSP. SOLIDS, LBS.

11509.2

8312.2

BOD₅, LBS.

1598

752

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

53.7

53.7

SUSP. SOLIDS, LBS.

1278.8

4475.8

BOD₅, LBS.

282

1128

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.5

1.5

SUSP. SOLIDS mg/l

17.5

17.5

BOD₅ mg/l

2.6

2.6

AFTER TREATMENT

SETT. SOLIDS mg/l

0.07

0.07

SUSP. SOLIDS mg/l

1.7

6.1

BOD₅ mg/l

0.4

1.5

TOTAL CAPITAL COST (\$)

1,350,000

3,125,000

ANNUAL O&M COST (\$)

45,000

140,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

14668

14668

REMOVED, LBS.

13107.2

9064.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

15,100

50,600

TREATMENT COST (¢/1000 gals)

9.6

25.0

76.0

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN LITTLETON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1234

TOTAL STORM RUNOFF VOL.

MIL. GAL. 35.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 287

SUSP. SOLIDS, LBS. 3412

BOD₅ 502

STORMWATER TREATMENT

TREAT. DESCRIP. SP SMD

VOLUME TREAT., MG 24.0 24.0

% TREATED 68.6 68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 272.6 272.6

SUSP. SOLIDS, LBS. 3070.8 2217.8

BOD₅, LBS. 426.7 200.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 14.4 14.4

SUSP. SOLIDS, LBS. 341.2 1194.2

BOD₅, LBS. 75.3 301.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.0 1.0

SUSP. SOLIDS mg/l 11.7 11.7

BOD₅ mg/l 1.7 1.7

AFTER TREATMENT

SETT. SOLIDS mg/l 0.05 0.05

SUSP. SOLIDS mg/l 1.2 4.1

BOD₅ mg/l 0.3 1.0

TOTAL CAPITAL COST (\$)

700,000 1,950,000

ANNUAL O&M COST (\$)

18,000 55,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 3914 3914

REMOVED, LBS. 3497.5 2418.6

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

7,800 31,600

TREATMENT COST (¢/1000 gals)

11.8 33.8

STORMWATER MANAGEMENT SUMMARY

13

ASSABET RIVER BASIN

TOWN MARLBOROUGH

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1575

TOTAL STORM RUNOFF VOL.

MIL. GAL.	52.6
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	1081
--------------------	------

SUSP. SOLIDS, LBS.	12821
--------------------	-------

BOD ₅	1885
------------------	------

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG	SP	SMD
-------------------	----	-----

% TREATED	36.1	36.1
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POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1027	1027
--------------------	------	------

SUSP. SOLIDS, LBS.	11538.9	8333.6
--------------------	---------	--------

BOD ₅ , LBS.	1602.2	754
-------------------------	--------	-----

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	54	54
--------------------	----	----

SUSP. SOLIDS, LBS.	1282.1	4487.4
--------------------	--------	--------

BOD ₅ , LBS.	282.8	1131
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AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	2.5	2.5
-------------------	-----	-----

SUSP. SOLIDS mg/l	29.2	29.2
-------------------	------	------

BOD ₅ mg/l	4.3	4.3
-----------------------	-----	-----

AFTER TREATMENT

SETT. SOLIDS mg/l	0.1	0.1
-------------------	-----	-----

SUSP. SOLIDS mg/l	2.9	10.2
-------------------	-----	------

BOD ₅ mg/l	0.6	2.6
-----------------------	-----	-----

TOTAL CAPITAL COST (\$)

925,000	2,350,000
---------	-----------

ANNUAL O&M COST (\$)

26,000	85,000
--------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	14706	14706
------------------------	-------	-------

REMOVED, LBS.	13141.1	9087.6
---------------	---------	--------

% REMOVED	89.4	61.8
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CAPITAL COSTS/% REMOVAL (\$)

10,300	38,000
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TREATMENT COST (¢/1000 gals)

10.8	33.9
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STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN MAYNARD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1302

TOTAL STORM RUNOFF VOL.

MIL. GAL. 42.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 630

SUSP. SOLIDS, LBS. 7483

BOD₅ 1100

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

29.2

29.2

% TREATED

68.4

68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

598.5

598.5

SUSP. SOLIDS, LBS.

6734.7

4864

BOD₅, LBS.

935

440

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

31.5

31.5

SUSP. SOLIDS, LBS.

748.3

2619

BOD₅, LBS.

165

660

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.8

1.8

SUSP. SOLIDS mg/l

21.0

21.0

BOD₅ mg/l

3.1

3.1

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

SUSP. SOLIDS mg/l

2.1

7.4

BOD₅ mg/l

0.5

1.9

TOTAL CAPITAL COST (\$)

800,000 2,200,000

ANNUAL O&M COST (\$)

22,000 75,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

8583

8583

REMOVED, LBS.

7669.7

5304

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

9,000

35,600

TREATMENT COST (¢/1000 gals)

11.2

31.2

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN	NORTHBOROUGH	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2606	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	83.6	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	1324	
SUSP. SOLIDS, LBS.	15762	
BOD ₅	2318	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	57.3	57.3
% TREATED	68.5	68.5
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	1257.8	1257.8
SUSP. SOLIDS, LBS.	14185.8	10245.3
BOD ₅ , LBS.	1970.3	927.2
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	66.2	66.2
SUSP. SOLIDS, LBS.	1576.2	5516.7
BOD ₅ , LBS.	347.7	1390.8
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.9	1.9
SUSP. SOLIDS mg/l	22.6	22.6
BOD ₅ mg/l	3.3	3.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.3	7.9
BOD ₅ mg/l	0.5	2.0
TOTAL CAPITAL COST (\$)	1,200,000	3,050,000
ANNUAL O&M COST (\$)	43,000	135,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	18080	18080
REMOVED, LBS.	16156.1	11172.5
% REMOVED	89.4	61.6
CAPITAL COSTS/% REMOVAL (\$)	13,400	49,400
TREATMENT COST (¢/1000 gals)	9.7	25.2

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN SHREWSBURY

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1764

TOTAL STORM RUNOFF VOL.

MIL. GAL. 50.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 643

SUSP. SOLIDS, LBS. 7694

BOD₅ 1131

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

34.9

34.9

% TREATED

68.7

68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

610.8

610.8

SUSP. SOLIDS, LBS.

6924.6

5001.1

BOD₅, LBS.

961.4

452.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

32.2

32.2

SUSP. SOLIDS, LBS.

769.4

2692.9

BOD₅, LBS.

169.6

678.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.5

1.5

SUSP. SOLIDS mg/l

18.2

18.2

BOD₅ mg/l

2.7

2.7

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08

0.08

SUSP. SOLIDS mg/l

1.8

6.4

BOD₅ mg/l

0.4

1.6

TOTAL CAPITAL COST (\$)

925,000

2,350,000

ANNUAL O&M COST (\$)

26,000

85,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

8825

8825

REMOVED, LBS.

7886

5453.5

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

10,300

38,000

TREATMENT COST (¢/1000 gals)

10.8

29.0

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN	STOW		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1816		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	49.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	403		
SUSP. SOLIDS, LBS.	4818		
BOD ₅	708		
STORMWATER TREATMENT			
TREAT. DESCRIP.		SP	SMD
VOLUME TREAT., MG		33.6	33.6
% TREATED		68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.		382.8	382.8
SUSP. SOLIDS, LBS.		4336.2	3131.7
BOD ₅ , LBS.		601.8	283.2
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.		20.2	20.2
SUSP. SOLIDS, LBS.		481.8	1686.3
BOD ₅ , LBS.		106.2	424.8
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l		1.0	1.0
SUSP. SOLIDS mg/l		11.8	11.8
BOD ₅ mg/l		1.7	1.7
AFTER TREATMENT			
SETT. SOLIDS mg/l		0.05	0.05
SUSP. SOLIDS mg/l		1.2	4.1
BOD ₅ mg/l		0.3	1.0
TOTAL CAPITAL COST (\$)	875,000		25,000
ANNUAL O&M COST (\$)	2,250,000		80,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	5526		5526
REMOVED, LBS.	4938		3414.9
% REMOVED	89.4		61.8
CAPITAL COSTS/% REMOVAL (\$)	9,800		36,400
TREATMENT COST (¢/1000 gals)	10.8		29.2

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN	SUDBURY			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	415			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	10.8			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	77			
SUSP. SOLIDS, LBS.	922			
BOD ₅	136			
STORMWATER TREATMENT				
TREAT. DESCRIP.	NT	SP	SMD	
VOLUME TREAT., MG	-	7.4	7.4	
% TREATED	-	68.5	68.5	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	-	73.2	69.3	
SUSP. SOLIDS, LBS.	-	829.8	599.3	
BOD ₅ , LBS.	-	115.6	54.4	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	77	3.8	7.7	
SUSP. SOLIDS, LBS.	922	92.2	322.7	
BOD ₅ , LBS.	136	20.4	81.6	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	0.9	0.9	0.9	
SUSP. SOLIDS mg/l	10.3	10.3	10.3	
BOD ₅ mg/l	1.5	1.5	1.5	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.9	0.04	0.1	
SUSP. SOLIDS mg/l	10.3	1.0	3.6	
BOD ₅ mg/l	1.5	0.2	0.9	
TOTAL CAPITAL COST (\$)	-	260,000	1,100,000	
ANNUAL O&M COST (\$)	-	5,000	15,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	1058	1058	1058	
REMOVED, LBS.	-	945.4	653.7	
% REMOVED	-	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	-	2,900	17,800	
	-	15.0	53.3	
TREATMENT COST (¢/1000 gals)				

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN	WESTBOROUGH		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1249		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	49.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	839		
SUSP. SOLIDS, LBS.	9901		
BOD ₅	1456		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	33.8	33.8	
% TREATED	68.4	68.4	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	797	797	
SUSP. SOLIDS, LBS.	8910.9	6435.6	
BOD ₅ , LBS.	1237.6	582.4	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	42	42	
SUSP. SOLIDS, LBS.	990.1	3465.4	
BOD ₅ , LBS.	218.4	873.6	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.0	2.0	
SUSP. SOLIDS mg/l	24.0	24.0	
BOD ₅ mg/l	3.5	3.5	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	
SUSP. SOLIDS mg/l	2.4	8.4	
BOD ₅ mg/l	0.5	2.1	
TOTAL CAPITAL COST (\$)	875,000	2,250,000	
ANNUAL O&M COST (\$)	25,000	80,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	11357	11357	
REMOVED, LBS.	10148.5	7018	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	9,800	36,400	
TREATMENT COST (¢/1000 gals)	10.8	29.2	

STORMWATER MANAGEMENT SUMMARY

ASSABET RIVER BASIN

TOWN WESTFORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 413

TOTAL STORM RUNOFF VOL.

MIL. GAL. 9.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 115

SUSP. SOLIDS, LBS. 1383

BOD₅ 203

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

SMD

VOLUME TREAT., MG

-

6.7

6.7

% TREATED

-

68.4

68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

109.2

109.2

SUSP. SOLIDS, LBS.

-

1244.7

899

BOD₅, LBS.

-

172.5

81.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

115

5.8

5.8

SUSP. SOLIDS, LBS.

1383

13803

484

BOD₅, LBS.

203

30.5

121.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.4

1.4

1.4

SUSP. SOLIDS mg/l

16.9

16.9

16.9

BOD₅ mg/l

2.5

2.5

2.5

AFTER TREATMENT

SETT. SOLIDS mg/l

1.4

0.07

0.07

SUSP. SOLIDS mg/l

16.9

1.7

5.9

BOD₅ mg/l

2.5

0.4

1.5

TOTAL CAPITAL COST (\$)

-

250,000 1,050,000

ANNUAL O&M COST (\$)

-

5,000 14,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

1586

1586

1586

REMOVED, LBS.

-

1417.2

980.2

% REMOVED

-

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

-

2,800

17,000

TREATMENT COST (¢/1000 gals)

-

15.2

55.7

STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN	BEVERLY			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	3669			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	120.2			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	1707			
SUSP. SOLIDS, LBS.	20297			
BOD ₅	2984			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	82.4	82.4	82.4	
% TREATED	68.6	68.6	68.6	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	1621.6	1621.6	1536.3	
SUSP. SOLIDS, LBS.	18267.3	13193	9133.6	
BOD ₅ , LBS.	2536.4	1193.6	596.8	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	85.4	85.4	170.7	
SUSP. SOLIDS, LBS.	2029.7	7104	11163.4	
BOD ₅ , LBS.	447.6	1790.4	2387.2	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	1.7	1.7	1.7	
SUSP. SOLIDS mg/l	20.2	20.2	20.2	
BOD ₅ mg/l	3.0	3.0	3.0	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.8	0.8	0.2	
SUSP. SOLIDS mg/l	2.0	7.1	11.1	
BOD ₅ mg/l	0.4	1.8	2.4	
TOTAL CAPITAL COST (\$)	1,745,000	3,750,000	12,000,000	
ANNUAL O&M COST (\$)	62,000	195,000	600,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	23,281	23,281	23,281	
REMOVED, LBS.	20,803.7	14386.6	9730.4	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	19,500	60,700	287,000	
TREATMENT COST (¢/1000 gals)	9.0	23.1	73.8	

STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN	DANVERS		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	4323		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	142.6		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	2329		
SUSP. SOLIDS, LBS.	27723		
BOD ₅	4077		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	97.5	97.5	97.5
% TREATED	68.5	68.5	68.5
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	2212.5	2212.5	2096.1
SUSP. SOLIDS, LBS.	24950.7	18020	12475.4
BOD ₅ , LBS.	3465.5	1630.8	815.4
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	116.5	116.5	232.9
SUSP. SOLIDS, LBS.	2772.3	9703	15247.6
BOD ₅ , LBS.	611.5	2446.2	3591.6
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.0	2.0	2.0
SUSP. SOLIDS mg/l	23.9	23.9	23.9
BOD ₅ mg/l	3.5	3.5	3.5
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.3	8.2	12.8
BOD ₅ mg/l	0.5	2.1	3.0
TOTAL CAPITAL COST (\$)	1,950,000	4,125,000	14,000,000
ANNUAL O&M COST (\$)	72,000	230,000	700,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	31800	31800	31800
REMOVED, LBS.	28416.2	19650.8	13290.8
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	21,800	66,700	335,000
TREATMENT COST (¢/1000 gals)	8.8	22.2	73.5

STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN	LYNN	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	44	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	1.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	10	
SUSP. SOLIDS, LBS.	119	
BOD ₅	17	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	10	
SUSP. SOLIDS, LBS.	119	
BOD ₅ , LBS.	17	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	
SUSP. SOLIDS mg/l	14.3	
BOD ₅ mg/l	2.0	
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.2	
SUSP. SOLIDS mg/l	14.3	
BOD ₅ mg/l	2.0	
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	136	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)		-
		-
TREATMENT COST (¢/1000 gals)		

STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN LYNNFIELD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	46

TOTAL STORM RUNOFF VOL.

MIL. GAL.	1.1
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	6
SUSP. SOLIDS, LBS.	75
BOD ₅	11

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	6
SUSP. SOLIDS, LBS.	75
BOD ₅ , LBS.	11

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	0.7
SUSP. SOLIDS mg/l	8.2
BOD ₅ mg/l	1.2
AFTER TREATMENT	
SETT. SOLIDS mg/l	0.7
SUSP. SOLIDS mg/l	8.2
BOD ₅ mg/l	1.2

TOTAL CAPITAL COST (\$)

ANNUAL O&M COST (\$)

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	86
REMOVED, LBS.	-
% REMOVED	-

CAPITAL COSTS/% REMOVAL (\$)

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN PEABODY

URBAN DRAINAGE AREA

YEAR 2000

ACRES 4660

TOTAL STORM RUNOFF VOL.

MIL. GAL. 171.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 3457

SUSP. SOLIDS, LBS. 41005

BOD₅ 6028

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

117.8

117.8

117.8

% TREATED

68.6

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

3284.2

3284.2

3111.3

SUSP. SOLIDS, LBS.

36904.5

26653.3

18452.2

BOD₅, LBS.

5123.8

2411.2

1205.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

172.8

172.8

345.7

SUSP. SOLIDS, LBS.

4100.5

14351.7

22552.8

BOD₅, LBS.

904.2

3616.8

4822.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.5

2.5

2.5

SUSP. SOLIDS mg/l

29.6

29.6

29.6

BOD₅ mg/l

4.2

4.2

4.2

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.9

10.0

15.7

BOD₅ mg/l

0.6

2.5

3.4

TOTAL CAPITAL COST (\$)

2,325,000

4,675,000

17,000,000

ANNUAL O&M COST (\$)

87,000

275,000

850,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

47033

47033

47033

REMOVED, LBS.

42028.3

29064.5

19657.8

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

26,000

75,600

407,000

TREATMENT COST (¢/1000 gals)

8.5

21.3

73.1

STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN SALEM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	855

TOTAL STORM RUNOFF VOL.

MIL. GAL.	28.7
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	651
SUSP. SOLIDS, LBS.	7758
BOD ₅	1141

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	19.7	19.7
% TREATED	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	618.5	618.5
SUSP. SOLIDS, LBS.	6982.2	5042.7
BOD ₅ , LBS.	969.8	456.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	32.5	32.5
SUSP. SOLIDS, LBS.	775.8	2715.3
BOD ₅ , LBS.	171.2	684.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.7	2.7
SUSP. SOLIDS mg/l	32.4	32.4
BOD ₅ mg/l	4.8	4.8
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	3.2	11.3
BOD ₅ mg/l	0.7	2.9

TOTAL CAPITAL COST (\$)	625,000	1,800,000
ANNUAL O&M COST (\$)	15,000	45,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	8899	8899
REMOVED, LBS.	7952	5499.1
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	6,700	29,100
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TREATMENT COST (¢/1000 gals)	12.4	36.7
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STORMWATER MANAGEMENT SUMMARY

BEVERLY HARBOR

TOWN WENHAM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	12

TOTAL STORM RUNOFF VOL.

MIL. GAL.	0.2
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	2
SUSP. SOLIDS, LBS.	19
BOD ₅	3

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	2
SUSP. SOLIDS, LBS.	19
BOD ₅ , LBS.	3

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	1.2
SUSP. SOLIDS mg/l	11.4
BOD ₅ mg/l	1.8
AFTER TREATMENT	
SETT. SOLIDS mg/l	1.2
SUSP. SOLIDS mg/l	11.4
BOD ₅ mg/l	1.8

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	21
------------------------	----

REMOVED, LBS.	-
---------------	---

% REMOVED	-
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CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

BLACKSTONE RIVER BASIN

TOWN BELLINGHAM

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1510

TOTAL STORM RUNOFF VOL.

MIL. GAL. 50.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 706

SUSP. SOLIDS, LBS. 8364

BOD₅ 1230

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

34.3

34.3

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

670.7

670.7

SUSP. SOLIDS, LBS.

7527.6

5436.6

BOD₅, LBS.

1045.5

492

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

35.3

35.3

SUSP. SOLIDS, LBS.

836.4

2927.4

BOD₅, LBS.

184.5

738

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.7

1.7

SUSP. SOLIDS mg/l

20.1

20.1

BOD₅ mg/l

2.9

2.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08

0.08

SUSP. SOLIDS mg/l

2.0

7.0

BOD₅ mg/l

0.4

1.8

TOTAL CAPITAL COST (\$)

875,000

2,250,000

ANNUAL O&M COST (\$)

25,000

80,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

9594

9594

REMOVED, LBS.

8573.1

5928.6

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

9,800

36,400

TREATMENT COST (¢/1000 gals)

10.8

29.2

STORMWATER MANAGEMENT SUMMARY

BLACKSTONE RIVER BASIN

TOWN FRANKLIN

URBAN DRAINAGE AREA

YEAR	2000
ACRES	93

TOTAL STORM RUNOFF VOL.

MIL. GAL.	2.1
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	24
SUSP. SOLIDS, LBS.	292
BOD ₅	43

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	24
SUSP. SOLIDS, LBS.	292
BOD ₅ , LBS.	43

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	1.4
SUSP. SOLIDS mg/l	16.7
BOD ₅ mg/l	2.5
AFTER TREATMENT	
SETT. SOLIDS mg/l	1.4
SUSP. SOLIDS mg/l	16.7
BOD ₅ mg/l	2.5

TOTAL CAPITAL COST (\$)

ANNUAL O&M COST (\$)

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	335
REMOVED, LBS.	-
% REMOVED	-

CAPITAL COSTS/% REMOVAL (\$)

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

BLACKSTONE RIVER BASIN

TOWN HOPKINTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 378

TOTAL STORM RUNOFF VOL.

MIL. GAL. 9.6

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 96

SUSP. SOLIDS, LBS. 1154

BOD₅ 170

STORMWATER TREATMENT

TREAT. DESCRIP. NT SP SMD

VOLUME TREAT., MG - 6.6 6.6

% TREATED - 68.8 68.8

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. - 91.2 91.2

SUSP. SOLIDS, LBS. - 1038.6 750.1

BOD₅, LBS. - 144.5 68

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 96 4.8 4.8

SUSP. SOLIDS, LBS. 1154 115.4 403.9

BOD₅, LBS. 170 25.5 102

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.2 1.2 1.2

SUSP. SOLIDS mg/l 14.4 14.4 14.4

BOD₅ mg/l 2.1 2.1 2.1

AFTER TREATMENT

SETT. SOLIDS mg/l 1.2 0.06 0.06

SUSP. SOLIDS mg/l 14.4 1.4

BOD₅ mg/l 2.1 0.3 1.3

TOTAL CAPITAL COST (\$)

- 250,000 1,050,000

ANNUAL O&M COST (\$)

- 5,000 14,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 1324 1324

REMOVED, LBS. - 1183.1 818.1

% REMOVED - 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

- 2800 17,000

TREATMENT COST (¢/1000 gals)

- 15.2 56.5

STORMWATER MANAGEMENT SUMMARY

BLACKSTONE RIVER BASIN

TOWN	MILFORD	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	116	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	3.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	31	
SUSP. SOLIDS, LBS.	369	
BOD ₅	54	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		31
SUSP. SOLIDS, LBS.		369
BOD ₅ , LBS.		54
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		14.3
BOD ₅ mg/l		2.1
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		14.3
BOD ₅ mg/l		2.1
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		423
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

BLACKSTONE RIVER BASIN

TOWN	WESTBOROUGH	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	12	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	0.2	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	2	
SUSP. SOLIDS, LBS.	30	
BOD ₅	4	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		2
SUSP. SOLIDS, LBS.		30
BOD ₅ , LBS.		4
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		18.0
BOD ₅ mg/l		2.4
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		18.0
BOD ₅ mg/l		2.4
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		34
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

BLACKSTONE RIVER BASIN

TOWN WRENTHAM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	364

TOTAL STORM RUNOFF VOL.	11.9
MIL. GAL.	

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	168
SUSP. SOLIDS, LBS.	1995
BOD ₅	293

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	8.2	8.2
% TREATED	68.9	68.9

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	159.6	159.6
SUSP. SOLIDS, LBS.	1795.5	1296.7
BOD ₅ , LBS.	249	117.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	8.4	8.8
SUSP. SOLIDS, LBS.	199.5	698.3
BOD ₅ , LBS.	44	175.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	20.1	20.1
BOD ₅ mg/l	3.0	3.0
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	2.0	7.0
BOD ₅ mg/l	0.4	1.8

TOTAL CAPITAL COST (\$)	290,000	1,200,000
ANNUAL O&M COST (\$)	6,000	18,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	2288	2288
REMOVED, LBS.	2044.5	1413.9
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	3200	19,400
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TREATMENT COST (¢/1000 gals)	14.3	52.9
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STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	ARLINGTON		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	140		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	4.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	77		
SUSP. SOLIDS, LBS.	920		
BOD ₅	135		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	NT	
VOLUME TREAT., MG	3.0	-	
% TREATED	68.2	-	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	73.2	-	
SUSP. SOLIDS, LBS.	828.0	-	
BOD ₅ , LBS.	114.8	-	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	3.8	77	
SUSP. SOLIDS, LBS.	92.0	920	
BOD ₅ , LBS.	20.2	135	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.1	2.1	
SUSP. SOLIDS mg/l	25.0	25.0	
BOD ₅ mg/l	3.7	3.7	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	2.1	
SUSP. SOLIDS mg/l	2.5	25.0	
BOD ₅ mg/l	0.6	3.7	
TOTAL CAPITAL COST (\$)	160,000	-	
ANNUAL O&M COST (\$)	3,000	-	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	1055	1055	
REMOVED, LBS.	942.8	-	
% REMOVED	89.4	-	
CAPITAL COSTS/% REMOVAL (\$)	1,800	-	
TREATMENT COST (¢/1000 gals)	20.1	-	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	ASHLAND		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	121		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	3.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	28		
SUSP. SOLIDS, LBS.	342		
BOD ₅	50		
STORMWATER TREATMENT			
TREAT. DESCRIP.	NT	SP	
VOLUME TREAT., MG	-	2.1	
% TREATED	-	70.0	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	-	26.6	
SUSP. SOLIDS, LBS.	-	307.8	
BOD ₅ , LBS.	-	42.5	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	28	1.4	
SUSP. SOLIDS, LBS.	342	34.2	
BOD ₅ , LBS.	50	7.5	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.1	1.1	
SUSP. SOLIDS mg/l	13.7	13.7	
BOD ₅ mg/l	2.0	2.0	
AFTER TREATMENT			
SETT. SOLIDS mg/l	1.1	0.06	
SUSP. SOLIDS mg/l	13.7	1.4	
BOD ₅ mg/l	2.0	0.3	
TOTAL CAPITAL COST (\$)	-	125,000	
ANNUAL O&M COST (\$)	-	3,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	392	392	
REMOVED, LBS.	-	350.3	
% REMOVED	-	89.4	
CAPITAL COSTS/% REMOVAL (\$)	-	1,400	
TREATMENT COST (¢/1000 gals)	-	23.7	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	BELLINGHAM	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1274	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	39.8	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	518	
SUSP. SOLIDS, LBS.	6121	
BOD ₅	900	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	27.3	27.3
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	492.1	492.1
SUSP. SOLIDS, LBS.	5508.9	3978.7
BOD ₅ , LBS.	765.0	360.0
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	25.9	25.9
SUSP. SOLIDS, LBS.	612.1	2142.3
BOD ₅ , LBS.	135	540
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.6	1.6
SUSP. SOLIDS mg/l	18.4	18.4
BOD ₅ mg/l	2.7	2.7
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	1.8	6.5
BOD ₅ mg/l	0.4	1.6
TOTAL CAPITAL COST (\$)	750,000	2,000,000
ANNUAL O&M COST (\$)	20,000	70,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	7021	7021
REMOVED, LBS.	6273.9	4338.7
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	8,400	32,400
TREATMENT COST (¢/1000 gals)	11.2	32.4

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN BELMONT

URBAN DRAINAGE AREA

YEAR 2000

ACRES 832

TOTAL STORM RUNOFF VOL.

MIL. GAL. 27.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 538

SUSP. SOLIDS, LBS. 6414

BOD₅ 943

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG SP 18.7 SMD 18.7 MD 18.7

% TREATED 68.5 68.5 68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 511.1 511.1 484.2

SUSP. SOLIDS, LBS. 5772.6 4169.1 2886.3

BOD₅, LBS. 801.5 377.2 188.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 26.9 26.9 53.8

SUSP. SOLIDS, LBS. 641.4 2249.9 3527.7

BOD₅, LBS. 141.5 565.8 759.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 2.4 2.4 2.4

SUSP. SOLIDS mg/l 28.2 28.2 28.2

BOD₅ mg/l 4.1 4.1 4.1

AFTER TREATMENT

SETT. SOLIDS mg/l 0.1 0.1 0.2

SUSP. SOLIDS mg/l 2.8 9.9 15.5

BOD₅ mg/l 0.6 2.5 3.3

TOTAL CAPITAL COST (\$)

525,000 1,700,000 3,000,000

ANNUAL O&M COST (\$)

13,000 40,000 150,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 7367 7367 7367

REMOVED, LBS. 6574.1 4546.3 3074.9

% REMOVED 89.4 61.8 41.8

CAPITAL COSTS/% REMOVAL (\$)

5,600 27,500 72,000

TREATMENT COST (¢/1000 gals)

11.2 36.0 80.5

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	DEDHAM		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	2144		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	70.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	1066		
SUSP. SOLIDS, LBS.	12668		
BOD ₅	1863		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	47.9	47.9	47.9
% TREATED	68.4	68.4	68.4
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	1012.7	1012.7	959.4
SUSP. SOLIDS, LBS.	11401.2	8234.2	5700.6
BOD ₅ , LBS.	1583.6	745.2	372.6
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	53.3	53.3	106.6
SUSP. SOLIDS, LBS.	1266.8	4433.8	6967.4
BOD ₅ , LBS.	279.4	1117.8	1490.4
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.8	1.8	1.8
SUSP. SOLIDS mg/l	21.7	21.7	21.7
BOD ₅ mg/l	3.2	3.2	3.2
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.09	0.09	0.2
SUSP. SOLIDS mg/l	2.2	7.6	11.9
BOD ₅ mg/l	0.5	1.9	2.6
TOTAL CAPITAL COST (\$)	1,125,000	2,650,000	7,000,000
ANNUAL O&M COST (\$)	32,000	110,000	350,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	14531	14531	14531
REMOVED, LBS.	12984.8	8979.4	6073.2
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	12,600	42,900	168,000
TREATMENT COST (¢/1000 gals)	9.8	25.9	73.3

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	DOVER		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	2703		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	72.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	546		
SUSP. SOLIDS, LBS.	6535		
BOD ₅	961		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	49.7	49.7	
% TREATED	68.6	68.6	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	518.7	518.7	
SUSP. SOLIDS, LBS.	5881.5	4247.8	
BOD ₅ , LBS.	816.9	384.6	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	27.3	27.3	
SUSP. SOLIDS, LBS.	653.5	2,287.3	
BOD ₅ , LBS.	144.1	576.6	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	0.9	0.9	
SUSP. SOLIDS mg/l	10.8	10.8	
BOD ₅ mg/l	1.6	1.6	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.05	0.05	
SUSP. SOLIDS mg/l	1.1	3.4	
BOD ₅ mg/l	0.2	0.6	
TOTAL CAPITAL COST (\$)	1,150,000	2,600,000	
ANNUAL O&M COST (\$)	33,000	120,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	7496	7496	
REMOVED, LBS.	6698.4	4632.4	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	12,900	42,100	
TREATMENT COST (¢/1000 gals)	9.6	25.4	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

BASIN/AREA

TOWN FRANKLIN

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3528

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	104.6

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	1270
SUSP. SOLIDS, LBS.	15089
BOD ₅	2218

STORMWATER TREATMENT

TREAT. DESCRIP.	SMD	SP
VOLUME TREAT., MG	71.7	71.7
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1206.5	1206.5
SUSP. SOLIDS, LBS.	9807.9	13580.1
BOD ₅ , LBS.	887.2	1885.3

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	63.5	63.5
SUSP. SOLIDS, LBS.	5281.1	1508.9
BOD ₅ , LBS.	1330.8	332.7

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	17.3	17.3
BOD ₅ mg/l	2.5	2.5
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	6.1	1.7
BOD ₅ mg/l	1.5	0.4

TOTAL CAPITAL COST (\$)	3,500,000	1,600,000
ANNUAL O&M COST (\$)	170,000	52,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	17307	17307
REMOVED, LBS.	10695.1	15465.4
% REMOVED	61.8	89.4

CAPITAL COSTS/% REMOVAL (\$)	56,600	17,900
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TREATMENT COST (¢/1000 gals)	29.2	9.6
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STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN HOLLISTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3407

TOTAL STORM RUNOFF VOL.

MIL. GAL. 101.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 936

SUSP. SOLIDS, LBS. 11,137

BOD₅ 1637

STORMWATER TREATMENT

TREAT. DESCRIPT.

SMD

SP

VOLUME TREAT., MG

69.8

69.8

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

889.2

889.2

SUSP. SOLIDS, LBS.

7239.1

10,023.3

BOD₅, LBS.

654.8

1391.5

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

46.8

46.8

SUSP. SOLIDS, LBS.

3897.9

1113.7

BOD₅, LBS.

982.2

245.7

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.1

1.1

SUSP. SOLIDS mg/l

13.1

13.1

BOD₅ mg/l

1.9

1.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.06

0.06

SUSP. SOLIDS mg/l

4.6

1.3

BOD₅ mg/l

1.2

0.3

TOTAL CAPITAL COST (\$)

3,400,000 1,500,000

ANNUAL O&M COST (\$)

170,000 50,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

12,774

12,774

REMOVED, LBS.

7893.9

11,414.8

% REMOVED

61.8

89.4

CAPITAL COSTS/% REMOVAL (\$)

55,000

16,800

TREATMENT COST (¢/1000 gals)

24.4

9.3

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN HOPEDALE

URBAN DRAINAGE AREA

YEAR 2000

ACRES 316

TOTAL STORM RUNOFF VOL.

MIL. GAL. 7.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 42

SUSP. SOLIDS, LBS. 513

BOD₅ 75

STORMWATER TREATMENT

TREAT. DESCRIP. NT SP

VOLUME TREAT., MG - 5.2

% TREATED - 67.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. - 39.9

SUSP. SOLIDS, LBS. - 461.7

BOD₅, LBS. - 63.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 42 2.1

SUSP. SOLIDS, LBS. 513 51.3

BOD₅, LBS. 75 11.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 0.7 0.7

SUSP. SOLIDS mg/l 8.0 8.0

BOD₅ mg/l 1.2 1.2

AFTER TREATMENT

SETT. SOLIDS mg/l 0.7 0.03

SUSP. SOLIDS mg/l 8.0 0.8

BOD₅ mg/l 1.2 0.2

TOTAL CAPITAL COST (\$)

- 240,000

ANNUAL O&M COST (\$)

- 4,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 588 588

REMOVED, LBS. - 525.5

% REMOVED - 89.4

CAPITAL COSTS/% REMOVAL (\$)

- 2,700

TREATMENT COST (¢/1000 gals)

17.0

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	HOPKINTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	182	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	4.4	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	45	
SUSP. SOLIDS, LBS.	543	
BOD ₅	80	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		45
SUSP. SOLIDS, LBS.		543
BOD ₅ , LBS.		80
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		14.8
BOD ₅ mg/l		2.2
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		14.8
BOD ₅ mg/l		2.2
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		623
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	LEXINGTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2284	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	61.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	741	
SUSP. SOLIDS, LBS.	8840	
BOD ₅	1300	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	41.8	41.8
% TREATED	68.5	68.5
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	704.0	704.0
SUSP. SOLIDS, LBS.	7956.0	5746.0
BOD ₅ , LBS.	1105.0	520.0
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	37.0	37.0
SUSP. SOLIDS, LBS.	884	3094
BOD ₅ , LBS.	195	780
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	17.4	17.4
BOD ₅ mg/l	2.6	2.6
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.7	6.1
BOD ₅ mg/l	0.4	1.5
TOTAL CAPITAL COST (\$)	1,000,000	2,500,000
ANNUAL O&M COST (\$)	32,000	100,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	10,140	10,140
REMOVED, LBS.	9061	6266
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	11,200	40,500
TREATMENT COST (¢/1000 gals)	10.3	27.6

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	LINCOLN	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1863	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	46.4	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	330	
SUSP. SOLIDS, LBS.	3967	
BOD ₅	583	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	31.7	31.7
% TREATED	68.3	68.3
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	313.5	313.5
SUSP. SOLIDS, LBS.	3570.3	2578.5
BOD ₅ , LBS.	495.5	233.2
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	16.5	16.5
SUSP. SOLIDS, LBS.	396.7	1388.5
BOD ₅ , LBS.	87.5	299.8
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	0.9	0.9
SUSP. SOLIDS mg/l	10.3	10.3
BOD ₅ mg/l	1.5	1.5
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.04	0.04
SUSP. SOLIDS mg/l	1.0	6.7
BOD ₅ mg/l	0.2	0.8
TOTAL CAPITAL COST (\$)	800,000	2,150,000
ANNUAL O&M COST (\$)	22,000	75,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	4550	4550
REMOVED, LBS.	4065.8	2811.7
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	9,000	34,800
TREATMENT COST (¢/1000 gals)	10.4	29.9

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	MEDFIELD		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	2786		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	81.9		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	73.2		
SUSP. SOLIDS, LBS.	8709		
BOD ₅	1280		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	56.2	56.2	
% TREATED	68.6	68.6	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	695.4	695.4	
SUSP. SOLIDS, LBS.	7,838.1	5,660.9	
BOD ₅ , LBS.	1,088.0	512.0	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	36.6	36.6	
SUSP. SOLIDS, LBS.	870.9	3,048.1	
BOD ₅ , LBS.	192	768	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.1	1.1	
SUSP. SOLIDS mg/l	12.8	12.8	
BOD ₅ mg/l	1.9	1.9	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.05	0.05	
SUSP. SOLIDS mg/l	1.3	4.5	
BOD ₅ mg/l	0.3	1.1	
TOTAL CAPITAL COST (\$)	1,260,000	3,000,000	
ANNUAL O&M COST (\$)	48,000	135,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	9989	9989	
REMOVED, LBS.	8926.1	6172.9	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	14,100	48,500	
TREATMENT COST (¢/1000 gals)	10.2	25.7	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	MEDWAY	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2078	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	65.6	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	811	
SUSP. SOLIDS, LBS.	9607	
BOD ₅	1412	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	45.0	45.0
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	770.5	770.5
SUSP. SOLIDS, LBS.	8646.3	6244.6
BOD ₅ , LBS.	1200.2	564.8
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	40.5	40.5
SUSP. SOLIDS, LBS.	960.7	3362.4
BOD ₅ , LBS.	211.8	847.2
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	17.6	17.6
BOD ₅ mg/l	2.6	2.6
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.8	6.1
BOD ₅ mg/l	0.4	1.5
TOTAL CAPITAL COST (\$)	1,100,000	2,600,000
ANNUAL O&M COST (\$)	32,000	105,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	11,019	11,019
REMOVED, LBS.	9846.6	6809.4
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	12,300	42,100
TREATMENT COST (¢/1000 gals)	10.2	26.8

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	MENDON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	155	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	3.8	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	28	
SUSP. SOLIDS, LBS.	335	
BOD ₅	49	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	28	
SUSP. SOLIDS, LBS.	335	
BOD ₅ , LBS.	49	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	0.9	
SUSP. SOLIDS mg/l	10.6	
BOD ₅ mg/l	1.5	
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.9	
SUSP. SOLIDS mg/l	10.6	
BOD ₅ mg/l	1.5	
TOTAL CAPITAL COST (\$)	-	
ANNUAL O&M COST (\$)	-	
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	384	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)	-	
TREATMENT COST (¢/1000 gals)		

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	MILLIS		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1781		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	53.1		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	756		
SUSP. SOLIDS, LBS.	7554		
BOD ₅	1112		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	36.4	36.4	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	718.2	718.2	
SUSP. SOLIDS, LBS.	6,798.6	4,910.1	
BOD ₅ , LBS.	945.2	444.8	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	37.8	37.8	
SUSP. SOLIDS, LBS.	755.4	2,643.9	
BOD ₅ , LBS.	166.8	667.2	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.7	1.7	
SUSP. SOLIDS mg/l	17.1	17.1	
BOD ₅ mg/l	2.5	2.5	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.09	0.09	
SUSP. SOLIDS mg/l	1.7	6.0	
BOD ₅ mg/l	0.4	1.5	
TOTAL CAPITAL COST (\$)	900,000	2,300,000	
ANNUAL O&M COST (\$)	23,000	82,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	8666	8666	
REMOVED, LBS.	7743.8	5354.9	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	10,100	37,200	
TREATMENT COST (¢/1000 gals)	10.0	28.1	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	NATICK	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2383	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	76.6	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	1139	
SUSP. SOLIDS, LBS.	13541	
BOD ₅	1991	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	DMD
VOLUME TREAT., MG	52.2	52.2
% TREATED	68.2	68.2
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	1,082.1	1,082.1
SUSP. SOLIDS, LBS.	12,186.9	8,801.7
BOD ₅ , LBS.	1,692.4	796.4
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	56.9	56.9
SUSP. SOLIDS, LBS.	1,354.1	4,739.3
BOD ₅ , LBS.	298.7	1,194.6
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.8	1.8
SUSP. SOLIDS mg/l	21.2	21.2
BOD ₅ mg/l	3.1	3.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.1	7.4
BOD ₅ mg/l	0.5	1.9
TOTAL CAPITAL COST (\$)	1,200,000	2,800,000
ANNUAL O&M COST (\$)	37,000	125,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	15532	15532
REMOVED, LBS.	13,879.3	9598.1
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	13,400	45,300
TREATMENT COST (¢/1000 gals)	9.7	25.8

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	NEEDHAM		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	4879		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	161.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	3046		
SUSP. SOLIDS, LBS.	36299		
BOD ₅	5337		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	110.7	110.7	110.7
% TREATED	68.6	68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	2893.7	2893.7	2741.4
SUSP. SOLIDS, LBS.	32669.1	23,594.4	16,334.6
BOD ₅ , LBS.	4536.5	2134.8	1067.4
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	152.3	152.3	304.6
SUSP. SOLIDS, LBS.	3629.9	12,704.6	19,964.4
BOD ₅ , LBS.	800.5	3202.2	4269.6
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.3	2.3	2.3
SUSP. SOLIDS mg/l	27.0	27.0	27.0
BOD ₅ mg/l	4.0	4.0	4.0
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.7	9.4	14.8
BOD ₅ mg/l	0.6	2.4	3.2
TOTAL CAPITAL COST (\$)	2,200,000	4,500,000	16,000,000
ANNUAL O&M COST (\$)	78,000	270,000	800,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	41,636	41,636	41,636
REMOVED, LBS.	37,205.6	25,729.2	17,402.0
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	24,600	72,800	383,000
TREATMENT COST (¢/1000 gals)	8.8	22.0	72.5

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	NEWTON			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	8152			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	266.0			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	5480			
SUSP. SOLIDS, LBS.	65425			
BOD ₅	9621			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	182.4	182.4	182.4	
% TREATED	68.6	68.6	68.6	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	5206	5206	4932	
SUSP. SOLIDS, LBS.	58,882.5	42,526.3	29,441.3	
BOD ₅ , LBS.	8177.9	3848.4	1924.2	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	274	274	548	
SUSP. SOLIDS, LBS.	6542.5	22898.7	35983.7	
BOD ₅ , LBS.	1443.1	5772.6	7696.8	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.5	2.5	2.5	
SUSP. SOLIDS mg/l	29.5	29.5	29.5	
BOD ₅ mg/l	4.3	4.3	4.3	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	3.0	10.3	16.2	
BOD ₅ mg/l	0.7	2.6	3.5	
TOTAL CAPITAL COST (\$)				
ANNUAL O&M COST (\$)	3,350,000	6,200,000	26,000,000	
	129,000	420,000	1,300,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	75046	75046	75046	
REMOVED, LBS.	67060.4	46374.7	31365.5	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)				
	37,500	100,300	622,000	
TREATMENT COST (¢/1000 gals)				
	8.4	19.5	71.5	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	NORFOLK		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	4372		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	144.5		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	1607		
SUSP. SOLIDS, LBS.	19086		
BOD ₅	2807		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SMD	SP	
VOLUME TREAT., MG	99.0	99.0	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	1526.7	1526.7	
SUSP. SOLIDS, LBS.	12,405.9	17,177.4	
BOD ₅ , LBS.	1122.8	2386.0	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	80.3	80.3	
SUSP. SOLIDS, LBS.	6,680.1	1908.6	
BOD ₅ , LBS.	1,684.2	421.0	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.3	1.3	
SUSP. SOLIDS mg/l	15.8	15.8	
BOD ₅ mg/l	2.3	2.3	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.07	0.07	
SUSP. SOLIDS mg/l	5.5	1.6	
BOD ₅ mg/l	1.4	0.3	
TOTAL CAPITAL COST (\$)	4,200,000	2,000,000	
ANNUAL O&M COST (\$)	235,000	73,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	21,893	21,893	
REMOVED, LBS.	13,528.7	19,563.4	
% REMOVED	61.8	89.4	
CAPITAL COSTS/% REMOVAL (\$)	68,000	22,400	
TREATMENT COST (¢/1000 gals)	22.3	9.0	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	SHERBORN	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2908	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	85.6	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	689	
SUSP. SOLIDS, LBS.	8180	
BOD ₅	1202	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	58.7	58.7
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	654.6	654.6
SUSP. SOLIDS, LBS.	7,362	5,317
BOD ₅ , LBS.	1,021.7	480.8
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	34.4	34.4
SUSP. SOLIDS, LBS.	818	2,863
BOD ₅ , LBS.	180.3	721.2
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.0	1.0
SUSP. SOLIDS mg/l	11.5	11.5
BOD ₅ mg/l	1.7	1.7
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.05	0.05
SUSP. SOLIDS mg/l	1.1	4.0
BOD ₅ mg/l	0.3	1.0
TOTAL CAPITAL COST (\$)	1,300,000	3,100,000
ANNUAL O&M COST (\$)	42,000	140,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	9382	9382
REMOVED, LBS.	8383.7	5797.2
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	14,500	50,200
TREATMENT COST (¢/1000 gals)	9.5	25.5

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN SOMERVILLE

URBAN DRAINAGE AREA

YEAR	2000
ACRES	656

TOTAL STORM RUNOFF VOL.

MIL. GAL.	28.6
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	519
SUSP. SOLIDS, LBS.	6085
BOD ₅	894

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	19.7	19.7	19.7
% TREATED	68.9	68.9	68.9

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	493.1	493.1	467.1
SUSP. SOLIDS, LBS.	5476.5	3955.2	2738.3
BOD ₅ , LBS.	759.9	357.6	178.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	25.9	25.9	51.9
SUSP. SOLIDS, LBS.	608.5	2129.8	3346.7
BOD ₅ , LBS.	134.1	536.4	715.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.2	2.2	2.2
SUSP. SOLIDS mg/l	25.5	25.5	25.5
BOD ₅ mg/l	3.7	3.7	3.7
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.6	3.9	14.0
BOD ₅ mg/l	0.6	2.2	3.0

TOTAL CAPITAL COST (\$)

550,000	1,750,000	3,000,000
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ANNUAL O&M COST (\$)

13,000	41,000	150,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	6979	6979	6979
REMOVED, LBS.	6236.4	4312.8	2917.1
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

6,200	28,300	72,000
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TREATMENT COST (¢/1000 gals)

11.1	35.1	76.4
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STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	WALPOLE	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	151	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	4.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	44	
SUSP. SOLIDS, LBS.	528	
BOD ₅	78	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	44	
SUSP. SOLIDS, LBS.	528	
BOD ₅ , LBS.	78	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.3	
SUSP. SOLIDS mg/l	15.8	
BOD ₅ mg/l	2.3	
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.3	
SUSP. SOLIDS mg/l	15.8	
BOD ₅ mg/l	2.3	
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	606	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN WALTHAM

URBAN DRAINAGE AREA

YEAR 2000

ACRES 5789

TOTAL STORM RUNOFF VOL.

MIL. GAL. 217.4

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 5351

SUSP. SOLIDS, LBS. 63,716

BOD₅ 9371

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

149.0

149.0

149.0

% TREATED

68.5

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

5083.5

5085.5

4815.9

SUSP. SOLIDS, LBS.

57,344.4

41,415.4

28,672.2

BOD₅, LBS.

7964.4

3748.4

1874.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

267.5

267.5

535.1

SUSP. SOLIDS, LBS.

6371.6

22300.6

35,043.8

BOD₅, LBS.

1405.6

5622.6

7496.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

3.0

3.0

3.0

SUSP. SOLIDS mg/l

35.1

35.1

35.1

BOD₅ mg/l

5.2

5.2

5.2

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.3

SUSP. SOLIDS mg/l

3.5

12.3

19.3

BOD₅ mg/l

0.8

3.0

4.1

TOTAL CAPITAL COST (\$)

2,850,000

5,400,000

22,000,000

ANNUAL O&M COST (\$)

107,000

350,000

1,100,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

73087

73087

73087

REMOVED, LBS.

65308.8

45,163.8

30,546.4

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

31,900

87,400

526,000

TREATMENT COST (¢/1000 gals)

8.6

20.3

74.1

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	WATERTOWN		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1309		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	47.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	972		
SUSP. SOLIDS, LBS.	11547		
BOD ₅	1698		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	32.3	32.3	32.3
% TREATED	68.7	68.7	68.7
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	923.4	923.4	874.8
SUSP. SOLIDS, LBS.	10,392.3	7,505.5	5196.2
BOD ₅ , LBS.	1443.3	679.2	339.6
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	48.6	48.6	97.2
SUSP. SOLIDS, LBS.	1154.7	4041.5	6350.8
BOD ₅ , LBS.	254.7	1018.8	1358.4
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.5	2.5	2.5
SUSP. SOLIDS mg/l	29.5	29.5	29.5
BOD ₅ mg/l	4.3	4.3	4.3
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.9	10.3	16.2
BOD ₅ mg/l	0.6	2.6	3.5
TOTAL CAPITAL COST (\$)	800,000	2,200,000	5,000,000
ANNUAL O&M COST (\$)	22,000	75,000	250,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	13245	13245	13245
REMOVED, LBS.	11835.6	8189.7	5535.8
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	9,000	35,600	120,000
TREATMENT COST (¢/1000 gals)	10.2	29.8	77.7

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	WAYLAND		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	227		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	5.2		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	26		
SUSP. SOLIDS, LBS.	406		
BOD ₅	60		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	NT	
VOLUME TREAT., MG	3.6	-	
% TREATED	69.2	-	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	24.7	-	
SUSP. SOLIDS, LBS.	365.4	-	
BOD ₅ , LBS.	51.0	-	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	1.3	26	
SUSP. SOLIDS, LBS.	40.6	406	
BOD ₅ , LBS.	9.0	60	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	0.6	0.6	
SUSP. SOLIDS mg/l	9.4	9.4	
BOD ₅ mg/l	1.4	1.4	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.03	0.6	
SUSP. SOLIDS mg/l	0.9	9.4	
BOD ₅ mg/l	0.2	1.4	
TOTAL CAPITAL COST (\$)	190,000	-	
ANNUAL O&M COST (\$)	4,000	-	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	466	466	
REMOVED, LBS.	416.4	-	
% REMOVED	89.4	-	
CAPITAL COSTS/% REMOVAL (\$)	2,100	-	
TREATMENT COST (¢/1000 gals)	20.4	-	

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN WELLESLEY

URBAN DRAINAGE AREA

YEAR 2000

ACRES 5078

TOTAL STORM RUNOFF VOL.

MIL. GAL. 152.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 2438

SUSP. SOLIDS, LBS. 29167

BOD₅ 4291

STORMWATER TREATMENT

TREAT. DESCRIP. SP SMD MD

VOLUME TREAT., MG 104.2 104.2 104.2

% TREATED 68.6 68.6 68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 2,316.1 2,316.1 2,194.2

SUSP. SOLIDS, LBS. 26,250.3 18,958.6 13,125.2

BOD₅, LBS. 3,647.4 1,716.4 858.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 121.9 121.9 243.8

SUSP. SOLIDS, LBS. 2,916.7 10,208.4 16,041.8

BOD₅, LBS. 643.7 2,574.6 3,432.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.9 1.9 1.9

SUSP. SOLIDS mg/l 23.0 23.0 23.0

BOD₅ mg/l 3.4 3.4 3.4

AFTER TREATMENT

SETT. SOLIDS mg/l 0.1 0.1 0.2

SUSP. SOLIDS mg/l 2.3 8.1 12.7

BOD₅ mg/l 0.5 2.0 2.7

TOTAL CAPITAL COST (\$)

2,150,000 4,400,000 15,500,000

ANNUAL O&M COST (\$)

74,000 245,000 775,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 33458 33458 33458

REMOVED, LBS. 29897.7 20675.0 13,983.4

% REMOVED 89.4 61.8 41.8

CAPITAL COSTS/% REMOVAL (\$)

24,000 71,200 371,000

TREATMENT COST (¢/1000 gals)

9.1 22.2 74.7

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN WESTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2328

TOTAL STORM RUNOFF VOL.

MIL. GAL. 78.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1109

SUSP. SOLIDS, LBS. 13196

BOD₅ 1941

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

53.7

53.7

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1053.5

1053.5

SUSP. SOLIDS, LBS.

11876.4

8577.4

BOD₅, LBS.

1649.9

776.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

55.5

55.5

SUSP. SOLIDS, LBS.

1319.6

4618.6

BOD₅, LBS.

291.1

1164.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.7

1.7

SUSP. SOLIDS mg/l

20.2

20.2

BOD₅ mg/l

3.0

3.0

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08

0.08

SUSP. SOLIDS mg/l

2.0

7.1

BOD₅ mg/l

0.4

1.8

TOTAL CAPITAL COST (\$)

1,250,000

2,850,000

ANNUAL O&M COST (\$)

35,000

125,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

15137

15137

REMOVED, LBS.

13526.3

9353.8

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

14,000

46,100

TREATMENT COST (¢/1000 gals)

9.6

25.3

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN	WESTWOOD	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1259	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	34.8	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	417	
SUSP. SOLIDS, LBS.	4982	
BOD ₅	733	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	23.9	23.9
% TREATED	68.7	68.7
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	396.2	396.2
SUSP. SOLIDS, LBS.	4483.8	3238.3
BOD ₅ , LBS.	623.1	293.2
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	20.8	20.8
SUSP. SOLIDS, LBS.	498.2	1743.7
BOD ₅ , LBS.	109.9	439.8
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.4	1.4
SUSP. SOLIDS mg/l	17.2	17.2
BOD ₅ mg/l	2.5	2.5
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.7	6.0
BOD ₅ mg/l	0.4	1.5
TOTAL CAPITAL COST (\$)	700,000	1,800,000
ANNUAL O&M COST (\$)	17,000	65,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	5715	5715
REMOVED, LBS.	5106.9	3531.5
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	7,800	29,100
TREATMENT COST (¢/1000 gals)	11.7	33.6

STORMWATER MANAGEMENT SUMMARY

CHARLES RIVER BASIN

TOWN WRENTHAM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1132

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	37.2

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	521
SUSP. SOLIDS, LBS.	6156
BOD ₅	905

STORMWATER TREATMENT

TREAT. DESCRIP.	SMD	SP
VOLUME TREAT., MG	25.5	25.5
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	495.1	495.1
SUSP. SOLIDS, LBS.	4001.4	5540.4
BOD ₅ , LBS.	362	769.3

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	25.9	25.9
SUSP. SOLIDS, LBS.	2154.6	615.6
BOD ₅ , LBS.	543	135.7

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	19.8	19.8
BOD ₅ mg/l	2.9	2.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	6.9	2.0
BOD ₅ mg/l	1.8	0.4

TOTAL CAPITAL COST (\$)	1,900,000	750,000
ANNUAL O&M COST (\$)	75,000	19,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	7061	7061
REMOVED, LBS.	4363.4	6309.7
% REMOVED	61.8	89.4

CAPITAL COSTS/% REMOVAL (\$)	30,700	8,400
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TREATMENT COST (¢/1000 gals)	34.3	11.8
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STORMWATER MANAGEMENT SUMMARY

CHELSEA RIVER BASIN

TOWN EVERETT

URBAN DRAINAGE AREA

YEAR	2000
ACRES	156

TOTAL STORM RUNOFF VOL.

MIL. GAL.	5.5
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	112
SUSP. SOLIDS, LBS.	1340
BOD ₅	197

STORMWATER TREATMENT

TREAT. DESCIP.	NT	SP	SMD
VOLUME TREAT., MG	-	3.8	3.8
% TREATED	-	69.1	69.1

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	106.4	106.4
SUSP. SOLIDS, LBS.	-	1206	871
BOD ₅ , LBS.	-	167.5	78.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	112	5.6	5.6
SUSP. SOLIDS, LBS.	1340	134	469
BOD ₅ , LBS.	197	29.5	118.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.4	2.4	2.4
SUSP. SOLIDS mg/l	29.2	29.2	29.2
BOD ₅ mg/l	4.3	4.3	4.3
AFTER TREATMENT			
SETT. SOLIDS mg/l	2.4	0.1	0.1
SUSP. SOLIDS mg/l	29.2	2.9	10.2
BOD ₅ mg/l	4.3	0.6	2.6

TOTAL CAPITAL COST (\$)

-	190,000	800,000
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ANNUAL O&M COST (\$)

-	4,000	10,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	1537	1537	1537
REMOVED, LBS.	-	1373.5	949.8
% REMOVED	-	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

-	2100	12,900
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TREATMENT COST (¢/1000 gals)

-	20.4	74.0
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STORMWATER MANAGEMENT SUMMARY

CHELSEA RIVER BASIN

TOWN REVERE

URBAN DRAINAGE AREA

YEAR 2000

ACRES 348

TOTAL STORM RUNOFF VOL.

MIL. GAL. 13.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 271

SUSP. SOLIDS, LBS. 3207

BOD₅ 472

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

9.0

9.0

% TREATED

68.7

68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

257.5

257.5

SUSP. SOLIDS, LBS.

2886.3

2084.5

BOD₅, LBS.

401.2

188.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

13.5

13.5

SUSP. SOLIDS, LBS.

320.7

1122.5

BOD₅, LBS.

70.8

283.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.5

2.5

SUSP. SOLIDS mg/l

29.3

29.3

BOD₅ mg/l

4.3

4.3

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.9

10.3

BOD₅ mg/l

0.6

2.6

TOTAL CAPITAL COST (\$)

325,000 1,250,000

ANNUAL O&M COST (\$)

7,000 24,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

3679

3679

REMOVED, LBS.

3287.5

2273.3

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

3,600

20,200

TREATMENT COST (¢/1000 gals)

14.3

52.6

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN	BEDFORD		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	988		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	35.9		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	836		
SUSP. SOLIDS, LBS.	9985		
BOD ₅	1470		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	24.6	24.6	
% TREATED	68.9	68.9	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	794.2	794.2	
SUSP. SOLIDS, LBS.	8986.5	6490.2	
BOD ₅ , LBS.	12495	588	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	41.8	41.8	
SUSP. SOLIDS, LBS.	989.5	3494.8	
BOD ₅ , LBS.	220.5	882	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.8	2.8	
SUSP. SOLIDS mg/l	33.4	33.4	
BOD ₅ mg/l	4.9	4.9	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	
SUSP. SOLIDS mg/l	3.3	11.7	
BOD ₅ mg/l	0.7	2.9	
TOTAL CAPITAL COST (\$)	700,000	2,000,000	
ANNUAL O&M COST (\$)	18,000	60,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	11455	11455	
REMOVED, LBS.	10236	7078.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	7,800	32,400	
TREATMENT COST (¢/1000 gals)	11.8	33.5	

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN BILLERICA

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3686

TOTAL STORM RUNOFF VOL.

MIL. GAL. 107.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1298

SUSP. SOLIDS, LBS. 15435

BOD₅ 2269

STORMWATER TREATMENT

TREAT. DESCRIP. SP CMD

VOLUME TREAT., MG 73.5 73.5

% TREATED 68.6 68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 1233.1 1233.1

SUSP. SOLIDS, LBS. 13891.5 10032.8

BOD₅, LBS. 1928.7 907.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 64.9 64.9

SUSP. SOLIDS, LBS. 1543.5 5402.2

BOD₅, LBS. 340.3 1361.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.5 1.5

SUSP. SOLIDS mg/l 17.3 17.3

BOD₅ mg/l 2.5 2.5

AFTER TREATMENT

SETT. SOLIDS mg/l 0.07 0.07

SUSP. SOLIDS mg/l 1.7 6.0

BOD₅ mg/l 0.4 1.5

TOTAL CAPITAL COST (\$)

1,575,000 3,475,000

ANNUAL O&M COST (\$)

54,000 170,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 17704 17704

REMOVED, LBS. 15820.2 10940.4

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

17,600 56,200

TREATMENT COST (¢/1000 gals)

9.2 23.7

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN CARLISLE

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2136

TOTAL STORM RUNOFF VOL.

MIL. GAL. 56.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 408

SUSP. SOLIDS, LBS. 4891

BOD₅ 719

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

38.3

38.3

% TREATED

68.4

68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

387.6

387.6

SUSP. SOLIDS, LBS.

4401.9

3179.2

BOD₅, LBS.

611.2

287.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

20.4

20.4

SUSP. SOLIDS, LBS.

489.1

1711.8

BOD₅, LBS.

107.8

431.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

0.9

0.9

SUSP. SOLIDS mg/l

10.5

10.5

BOD₅ mg/l

1.5

1.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.4

0.4

SUSP. SOLIDS mg/l

1.0

3.7

BOD₅ mg/l

0.2

0.9

TOTAL CAPITAL COST (\$)

1,000,000

2,450,000

ANNUAL O&M COST (\$)

28,000

90,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

5610

5610

REMOVED, LBS.

5013.1

3466.8

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

11,200

39,600

TREATMENT COST (¢/1000 gals)

10.5

28.0

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN CHELMSFORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 5278

TOTAL STORM RUNOFF VOL.

MIL. GAL. 153.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1939

SUSP. SOLIDS, LBS. 23115

BOD₅ 3399

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

104.9

104.9

104.9

% TREATED

68.6

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1842

1842

1745.1

SUSP. SOLIDS, LBS.

20803.5

15024.8

10401.8

BOD₅, LBS.

2889.2

1359.6

679.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

97

97

193.9

SUSP. SOLIDS, LBS.

2311.5

8090.2

12713.2

BOD₅, LBS.

509.8

2039.4

2719.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.5

1.5

1.5

SUSP. SOLIDS mg/l

18.1

18.1

18.1

BOD₅ mg/l

2.7

2.7

2.7

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08

0.08

0.2

SUSP. SOLIDS mg/l

1.8

6.3

10.0

BOD₅ mg/l

0.4

1.6

2.1

TOTAL CAPITAL COST (\$)

2,100,000

4,300,000

15,500,000

ANNUAL O&M COST (\$)

77,000

245,000

775,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

4 26514

26514

26514

REMOVED, LBS.

23692.7

16384.4

11081.6

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

23,500

69,600

371,000

TREATMENT COST (¢/1000 gals)

8.7

21.9

73.3

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN	CONCORD	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1195	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	36.5	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	576	
SUSP. SOLIDS, LBS.	6895	
BOD ₅	1014	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	25.1	25.1
% TREATED	68.8	68.8
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	547.2	547.2
SUSP. SOLIDS, LBS.	6205.5	4481.8
BOD ₅ , LBS.	861.9	405.6
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	28.8	28.8
SUSP. SOLIDS, LBS.	689.5	2413.2
BOD ₅ , LBS.	152.1	608.4
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.0	2.0
SUSP. SOLIDS mg/l	23.4	23.4
BOD ₅ mg/l	3.4	3.4
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.3	7.9
BOD ₅ mg/l	0.5	2.0
TOTAL CAPITAL COST (\$)	750,000	2,000,000
ANNUAL O&M COST (\$)	19,000	60,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	7909	7909
REMOVED, LBS.	7067.4	4887.4
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	8,400	32,400
TREATMENT COST (¢/1000 gals)	11.7	33.0

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN	LINCOLN	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	128	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	3.3	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	24	
SUSP. SOLIDS, LBS.	288	
BOD ₅	42	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	24	
SUSP. SOLIDS, LBS.	288	
BOD ₅ , LBS.	42	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	0.9	
SUSP. SOLIDS mg/l	10.5	
BOD ₅ mg/l	1.5	
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.9	
SUSP. SOLIDS mg/l	10.5	
BOD ₅ mg/l	0.9	
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	330	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN LOWELL

URBAN DRAINAGE AREA

YEAR	2000
ACRES	2438

TOTAL STORM RUNOFF VOL.

MIL. GAL.	84.4
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	1546
SUSP. SOLIDS, LBS.	18335
BOD ₅	2695

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	57.8	57.8	57.8
% TREATED	68.5	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1468.7	1468.7	1391.4
SUSP. SOLIDS, LBS.	16501.5	11917.8	8250.8
BOD ₅ , LBS.	2290.8	1078	539

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	77.3	77.3	154.6
SUSP. SOLIDS, LBS.	1833.5	6417.2	10084.2
BOD ₅ , LBS.	404.2	1617	2156

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.2	2.2	2.2
SUSP. SOLIDS mg/l	26.0	26.0	26.0
BOD ₅ mg/l	3.8	3.8	3.8
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.6	9.1	14.3
BOD ₅ mg/l	0.6	2.3	3.1

TOTAL CAPITAL COST (\$)

1,300,000	3,100,000	8,500,000
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ANNUAL O&M COST (\$)

44,000	140,000	425,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	21,030	21,030	21,030
REMOVED, LBS.	18792.3	12995.8	8789.8
% REMOVED	89.4	61.8	41.6

CAPITAL COSTS/% REMOVAL (\$)

14,500	50,200	203,000
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TREATMENT COST (¢/1000 gals)

9.7	25.3	74.8
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STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN	TEWKSBURY	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	294	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	10.4	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	162	
SUSP. SOLIDS, LBS.	1919	
BOD ₅	282	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	7.1	7.1
% TREATED	68.3	68.3
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	153.9	153.9
SUSP. SOLIDS, LBS.	1727.1	1247.4
BOD ₅ , LBS.	239.7	112.8
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	8.1	8.1
SUSP. SOLIDS, LBS.	191.9	671.6
BOD ₅ , LBS.	42.3	169.2
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.9	1.9
SUSP. SOLIDS mg/l	22.1	22.1
BOD ₅ mg/l	3.3	3.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.2	7.7
BOD ₅ mg/l	0.5	2.0
TOTAL CAPITAL COST (\$)	260,000	1,130,000
ANNUAL O&M COST (\$)	5,000	19,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	2201	2201
REMOVED, LBS.	1966.8	1360.2
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	2,900	18,300
TREATMENT COST (¢/1000 gals)	15.0	58.7

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN WESTFORD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	192

TOTAL STORM RUNOFF VOL.

MIL. GAL.	4.4
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	44
SUSP. SOLIDS, LBS.	529
BOD ₅	78

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP	SMD
VOLUME TREAT., MG	-	3.0	3.0
% TREATED	-	68.2	68.2

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	41.8	41.8
SUSP. SOLIDS, LBS.	-	476.1	343.8
BOD ₅ , LBS.	-	66.3	31.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	44	2.2	2.2
SUSP. SOLIDS, LBS.	529	52.9	185.2
BOD ₅ , LBS.	78	11.7	46.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.2	1.2	1.2
SUSP. SOLIDS mg/l	14.5	14.5	14.5
BOD ₅ mg/l	2.1	2.1	2.1
AFTER TREATMENT			
SETT. SOLIDS mg/l	1.2	0.06	0.06
SUSP. SOLIDS mg/l	14.5	1.4	5.0
BOD ₅ mg/l	2.1	0.3	1.3

TOTAL CAPITAL COST (\$)

-	150,000	750,000
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ANNUAL O&M COST (\$)

-	3,000	9,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	607	607	607
REMOVED, LBS.	-	542.4	375
% REMOVED	-	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

-	1,700	12,100
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TREATMENT COST (¢/1000 gals)

-	20.0	87.5
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STORMWATER MANAGEMENT SUMMARY

ESSEX BAY

TOWN BEVERLY

URBAN DRAINAGE AREA

YEAR	2000
ACRES	20

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	0.7

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	6
SUSP. SOLIDS, LBS.	75
BOD ₅	11

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	6
SUSP. SOLIDS, LBS.	75
BOD ₅ , LBS.	11

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	1.0
SUSP. SOLIDS mg/l	12.8
BOD ₅ mg/l	1.9
AFTER TREATMENT	
SETT. SOLIDS mg/l	1.0
SUSP. SOLIDS mg/l	12.8
BOD ₅ mg/l	1.9

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	86
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REMOVED, LBS.	-
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% REMOVED	-
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CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

STORMWATER MANAGEMENT SUMMARY

ESSEX BAY

TOWN	ESSEX		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1335		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	37.8		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	327		
SUSP. SOLIDS, LBS.	3900		
BOD ₅	573		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	25.9	25.9	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	310.7	310.7	
SUSP. SOLIDS, LBS.	3510	2535	
BOD ₅ , LBS.	487	229.2	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	16.3	16.3	
SUSP. SOLIDS, LBS.	390	1365	
BOD ₅ , LBS.	86	343.8	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.0	1.0	
SUSP. SOLIDS mg/l	12.4	12.4	
BOD ₅ mg/l	1.8	1.8	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.05	0.05	
SUSP. SOLIDS mg/l	1.2	4.3	
BOD ₅ mg/l	0.3	1.1	
TOTAL CAPITAL COST (\$)	750,000	2,000,000	
ANNUAL O&M COST (\$)	19,000	60,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	4473	4473	
REMOVED, LBS.	3997	2764.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	8,400	32,400	
TREATMENT COST (¢/1000 gals)	11.7	32.9	

STORMWATER MANAGEMENT SUMMARY

ESSEX BAY

TOWN GLOUCESTER

URBAN DRAINAGE AREA

YEAR 2000

ACRES 303

TOTAL STORM RUNOFF VOL.

MIL. GAL. 7.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 56

SUSP. SOLIDS, LBS. 681

BOD₅ 100

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

SMD

VOLUME TREAT., MG

-

4.8

4.8

% TREATED

-

67.6

67.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

53.2

53.2

SUSP. SOLIDS, LBS.

-

612.9

442.6

BOD₅, LBS.

-

85

40

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

56

2.8

2.8

SUSP. SOLIDS, LBS.

681

68.1

238.4

BOD₅, LBS.

100

15

60

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

0.9

0.9

0.9

SUSP. SOLIDS mg/l

11.5

11.5

11.5

BOD₅ mg/l

1.7

1.7

1.7

AFTER TREATMENT

SETT. SOLIDS mg/l

0.9

0.05

0.05

SUSP. SOLIDS mg/l

11.5

1.1

4.0

BOD₅ mg/l

1.7

0.3

1.0

TOTAL CAPITAL COST (\$)

-

200,000

950,000

ANNUAL O&M COST (\$)

-

5,000

11,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

781

781

781

REMOVED, LBS.

-

697.9

482.6

% REMOVED

-

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

-

22,000

15,400

TREATMENT COST (¢/1000 gals)

-

16.5

68.9

STORMWATER MANAGEMENT SUMMARY

ESSEX BAY

TOWN HAMILTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	216

TOTAL STORM RUNOFF VOL.

MIL. GAL.	6.3
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	64
SUSP. SOLIDS, LBS.	768
BOD ₅	113

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP	SMD
VOLUME TREAT., MG	-	4.3	4.3
% TREATED	-	68.3	68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	60.8	60.8
SUSP. SOLIDS, LBS.	-	691.2	499.2
BOD ₅ , LBS.	-	96	45.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	64	3.2	3.2
SUSP. SOLIDS, LBS.	768	76.8	268.8
BOD ₅ , LBS.	113	17	67.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.2	1.2	1.2
SUSP. SOLIDS mg/l	14.6	14.6	14.6
BOD ₅ mg/l	2.2	2.2	2.2
AFTER TREATMENT			
SETT. SOLIDS mg/l	1.2	0.06	0.06
SUSP. SOLIDS mg/l	14.6	1.5	5.1
BOD ₅ mg/l	2.2	0.3	1.3

TOTAL CAPITAL COST (\$)

-	200,000	900,000
---	---------	---------

ANNUAL O&M COST (\$)

-	5,000	10,000
---	-------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	881	881	881
REMOVED, LBS.	-	787.2	544.4
% REMOVED	-	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

-	2200	14,600
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TREATMENT COST (¢/1000 gals)

-	16.5	72.5
---	------	------

STORMWATER MANAGEMENT SUMMARY

CONCORD RIVER BASIN

TOWN	IPSWICH	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	123	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	3.5	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	44	
SUSP. SOLIDS, LBS.	532	
BOD ₅	78	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	44	
SUSP. SOLIDS, LBS.	532	
BOD ₅ , LBS.	78	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.5	
SUSP. SOLIDS mg/l	18.2	
BOD ₅ mg/l	2.7	
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.5	
SUSP. SOLIDS mg/l	18.2	
BOD ₅ mg/l	2.7	
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	610	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

ESSEX BAY

TOWN	WENHAM	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	73	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	2.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	25	
SUSP. SOLIDS, LBS.	298	
BOD ₅	44	
STORMWATER TREATMENT		
TREAT. DESCRIPT.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		25
SUSP. SOLIDS, LBS.		298
BOD ₅ , LBS.		44
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.4
SUSP. SOLIDS mg/l		17.0
BOD ₅ mg/l		2.5
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.4
SUSP. SOLIDS mg/l		17.0
BOD ₅ mg/l		2.5
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		342
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

GLOUCESTER HARBOR

TOWN GLOUCESTER

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3092
TOTAL STORM RUNOFF VOL.	
MIL. GAL.	91.8
TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	1169
SUSP. SOLIDS, LBS.	13922
BOD ₅	2047

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	62.9	62.9
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1110.5	1110.5
SUSP. SOLIDS, LBS.	12529.8	9049.3
BOD ₅ , LBS.	1740	818.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	58.5	58.5
SUSP. SOLIDS, LBS.	1392.2	4872.7
BOD ₅ , LBS.	307	1228.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	18.2	18.2
BOD ₅ mg/l	2.7	2.7

AFTER TREATMENT

SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	1.8	6.4
BOD ₅ mg/l	0.4	1.6

TOTAL CAPITAL COST (\$)	1,400,000	3,200,000
ANNUAL O&M COST (\$)	47,000	150,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	15969	15969
REMOVED, LBS.	14269.8	9868.1
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	15,700	52,600
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TREATMENT COST (¢/1000 gals)	9.5	24.7
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STORMWATER MANAGEMENT SUMMARY

GLOUCESTER HARBOR

TOWN ROCKPORT

URBAN DRAINAGE AREA

YEAR	2000
ACRES	20

TOTAL STORM RUNOFF VOL.

MIL. GAL.	0.5
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	4
SUSP. SOLIDS, LBS.	43
BOD ₅	6

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	4
SUSP. SOLIDS, LBS.	43
BOD ₅ , LBS.	6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	1.0
SUSP. SOLIDS mg/l	10.3
BOD ₅ mg/l	1.4
AFTER TREATMENT	
SETT. SOLIDS mg/l	1.0
SUSP. SOLIDS mg/l	10.3
BOD ₅ mg/l	1.4

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	49
REMOVED, LBS.	-
% REMOVED	-

CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

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STORMWATER MANAGEMENT STUDY

IPSWICH RIVER BASIN

TOWN ANDOVER

URBAN DRAINAGE AREA

YEAR	2000
ACRES	547

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	13.5

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	113
SUSP. SOLIDS, LBS.	1358
BOD ₅	200

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	9.2	9.2
% TREATED	68.2	68.2

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	107.4	107.4
SUSP. SOLIDS, LBS.	1222.2	882.7
BOD ₅ , LBS.	170	80

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	5.6	5.6
SUSP. SOLIDS, LBS.	135.8	475.3
BOD ₅ , LBS.	30	

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.0	1.0
SUSP. SOLIDS mg/l	12.1	12.1
BOD ₅ mg/l	1.8	1.8
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.05	0.05
SUSP. SOLIDS mg/l	1.2	4.2
BOD ₅ mg/l	0.3	1.1

TOTAL CAPITAL COST (\$)	325,000	1,250,000
ANNUAL O&M COST (\$)	7,000	20,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	1558	1558
REMOVED, LBS.	1392.2	962.7
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	3,600	20,200
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TREATMENT COST (¢/1000 gals)	14.2	49.7
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STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN	BEVERLY		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1517		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	49.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	664		
SUSP. SOLIDS, LBS.	7889		
BOD ₅	1160		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	33.6	33.6	33.6
% TREATED	68.6	68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	630.8	630.8	597.6
SUSP. SOLIDS, LBS.	7100.1	5127.8	3550
BOD ₅ , LBS.	986	464	232
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	33.2	33.2	66.4
SUSP. SOLIDS, LBS.	788.9	2761.2	4339
BOD ₅ , LBS.	174	696	928
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.6	1.6	1.6
SUSP. SOLIDS mg/l	19.3	19.3	19.3
BOD ₅ mg/l	2.8	2.8	2.8
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.08	0.08	0.2
SUSP. SOLIDS mg/l	1.9	6.8	10.6
BOD ₅ mg/l	0.4	1.7	2.3
TOTAL CAPITAL COST (\$)	875,000	2,250,000	5,000,000
ANNUAL O&M COST (\$)	25,000	80,000	250,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	9049	9049	9049
REMOVED, LBS.	8086.1	5591.8	3782
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	9,800	36,400	120,000
TREATMENT COST (¢/1000 gals)	10.8	29.2	76.6

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN BILLERICA

URBAN DRAINAGE AREA

YEAR 2000

ACRES 78

TOTAL STORM RUNOFF VOL.

MIL. GAL. 2.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 21

SUSP. SOLIDS, LBS. 249

BOD₅ 37

STORMWATER TREATMENT

TREAT. DESCRIP. NT

VOLUME TREAT., MG -

% TREATED -

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. -

SUSP. SOLIDS, LBS. -

BOD₅, LBS. -

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 21

SUSP. SOLIDS, LBS. 249

BOD₅, LBS. 37

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.3

SUSP. SOLIDS mg/l 14.9

BOD₅ mg/l 2.2

AFTER TREATMENT

SETT. SOLIDS mg/l 1.3

SUSP. SOLIDS mg/l 14.9

BOD₅ mg/l 2.2

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 286

REMOVED, LBS. -

% REMOVED -

CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

STORMWATER MANAGEMENT STUDY

IPSWICH RIVER BASIN

TOWN	BOXFORD	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2524	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	67.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	498	
SUSP. SOLIDS, LBS.	5950	
BOD ₅	874	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	46.0	46.0
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	473.1	473.1
SUSP. SOLIDS, LBS.	5355	3867.5
BOD ₅ , LBS.	742.9	349.6
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	24.9	24.9
SUSP. SOLIDS, LBS.	595	2082.5
BOD ₅ , LBS.	131.1	524.4
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	0.9	0.9
SUSP. SOLIDS mg/l	10.6	10.6
BOD ₅ mg/l	1.6	1.6
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.04	0.04
SUSP. SOLIDS mg/l	1.1	3.7
BOD ₅ mg/l	0.2	0.9
TOTAL CAPITAL COST (\$)	1,125,000	2,750,000
ANNUAL O&M COST (\$)	35,000	110,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	6824	6824
REMOVED, LBS.	6097.9	4217.1
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	12,600	44,500
TREATMENT COST (¢/1000 gals)	10.2	26.8

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN BURLINGTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1782

TOTAL STORM RUNOFF VOL.

MIL. GAL.	58.0
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	863
SUSP. SOLIDS, LBS.	10286
BOD ₅	1512

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	39.8	39.8
% TREATED	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	819.9	819.9
SUSP. SOLIDS, LBS.	9257.4	6685.9
BOD ₅ , LBS.	1285.2	604.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	43.1	43.1
SUSP. SOLIDS, LBS.	1028.6	3600.1
BOD ₅ , LBS.	226.8	907.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.8	1.8
SUSP. SOLIDS mg/l	21.3	21.3
BOD ₅ mg/l	3.1	3.1

AFTER TREATMENT

SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.1	7.4
BOD ₅ mg/l	0.5	1.9

TOTAL CAPITAL COST (\$)

1,050,000	2,500,000
-----------	-----------

ANNUAL O&M COST (\$)

30,000	100,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	11798	11798
REMOVED, LBS.	10542.8	7290.7
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

11,800	40,500
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TREATMENT COST (¢/1000 gals)

10.4	27.8
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STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN	DANVERS		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	924		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	31.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	681		
SUSP. SOLIDS, LBS.	8138		
BOD ₅	1198		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	21.5	21.5	21.5
% TREATED	68.5	68.5	68.5
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	647	647	612.9
SUSP. SOLIDS, LBS.	7324.2	5289.7	3662.1
BOD ₅ , LBS.	1018.3	479.2	239.6
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	34	34	68.1
SUSP. SOLIDS, LBS.	813.8	2848.3	4475.9
BOD ₅ , LBS.	179.7	718.8	958.4
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.6	2.6	2.6
SUSP. SOLIDS mg/l	31.1	31.1	31.1
BOD ₅ mg/l	4.6	4.6	4.6
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.3
SUSP. SOLIDS mg/l	3.1	10.9	17.1
BOD ₅ mg/l	0.7	2.7	3.7
TOTAL CAPITAL COST (\$)	650,000	1,900,000	3,000,000
ANNUAL O&M COST (\$)	17,000	55,000	150,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	9336	9336	9336
REMOVED, LBS.	8342.5	5768.9	3901.7
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	7,300	30,700	72,000
TREATMENT COST (¢/1000 gals)	12.0	34.5	78.5

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN HAMILTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2368

TOTAL STORM RUNOFF VOL.

MIL. GAL. 68.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 706

SUSP. SOLIDS, LBS. 8453

BOD₅ 1243

STORMWATER TREATMENT

TREAT. DESCRIP. SP SMD

VOLUME TREAT., MG 46.8 46.8

% TREATED 68.5 68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 670.7 670.7

SUSP. SOLIDS, LBS. 7607.7 5494.5

BOD₅, LBS. 1056.5 497.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 35.3 35.3

SUSP. SOLIDS, LBS. 845.3 2958.5

BOD₅, LBS. 186.5 745.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.2 1.2

SUSP. SOLIDS mg/l 14.8 14.8

BOD₅ mg/l 2.2 2.2

AFTER TREATMENT

SETT. SOLIDS mg/l 0.06 0.06

SUSP. SOLIDS mg/l 1.5 5.2

BOD₅ mg/l 0.3 1.3

TOTAL CAPITAL COST (\$) 1,125,000 2,750,000

ANNUAL O&M COST (\$) 35,000 110,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 9696 9696

REMOVED, LBS. 8664.2 5991.7

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$) 12,600 44,500

TREATMENT COST (¢/1000 gals) 10.2 26.8

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN	IPSWICH	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	3328	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	118.8	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	1969	
SUSP. SOLIDS, LBS.	23508	
BOD ₅	3460	
STORMWATER TREATMENT		
TREAT. DESCRIPT.	SP	SMD
VOLUME TREAT., MG	81.4	81.4
% TREATED	68.5	68.5
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	1870.5	1870.5
SUSP. SOLIDS, LBS.	21157.2	15280.2
BOD ₅ , LBS.	2941	1384
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	98.5	98.5
SUSP. SOLIDS, LBS.	2350.8	8827.8
BOD ₅ , LBS.	519	2076
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.0	2.0
SUSP. SOLIDS mg/l	23.7	23.7
BOD ₅ mg/l	3.5	3.5
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.4	8.3
BOD ₅ mg/l	0.5	2.1
TOTAL CAPITAL COST (\$)	1,725,000	3,750,000
ANNUAL O&M COST (\$)	61,000	195,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	26968	26968
REMOVED, LBS.	24098.2	16664.2
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	19,300	60,700
TREATMENT COST (¢/1000 gals)	9.0	23.2

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN LYNNFIELD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 326

TOTAL STORM RUNOFF VOL.

MIL. GAL. 8.6

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 75

SUSP. SOLIDS, LBS. 902

BOD₅ 133

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

SMD

VOLUME TREAT., MG

-

5.9

5.9

% TREATED

-

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

71.2

71.2

SUSP. SOLIDS, LBS.

-

811.8

586.3

BOD₅, LBS.

-

113

53.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

75

3.8

3.8

SUSP. SOLIDS, LBS.

902

90.2

315.7

BOD₅, LBS.

133

20

79.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.0

1.0

1.0

SUSP. SOLIDS mg/l

12.6

12.6

12.6

BOD₅ mg/l

1.9

1.9

1.9

AFTER TREATMENT

SETT. SOLIDS mg/l

1.0

0.05

0.05

SUSP. SOLIDS mg/l

12.6

1.3

4.4

BOD₅ mg/l

1.9

0.3

1.1

TOTAL CAPITAL COST (\$)

-

225,000

1,025,000

ANNUAL O&M COST (\$)

-

5,000

15,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

1035

1035

1035

REMOVED, LBS.

-

924.8

639.5

% REMOVED

-

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

-

2,500

16,600

TREATMENT COST (¢/1000 gals)

-

15.8

62.6

STORMWATER MANAGEMENT STUDY

IPSWICH RIVER BASIN

TOWN MIDDLETON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 4165

TOTAL STORM RUNOFF VOL.

MIL. GAL. 158.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 2726

SUSP. SOLIDS, LBS. 32498

BOD₅ 4783

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

108.8

108.8

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

2589.7

2589.7

SUSP. SOLIDS, LBS.

29248.2

21123.7

BOD₅, LBS.

4065.6

1913.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

136.3

136.3

SUSP. SOLIDS, LBS.

3249.8

11374.3

BOD₅, LBS.

717.4

2869.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.1

2.1

SUSP. SOLIDS mg/l

24.6

24.6

BOD₅ mg/l

3.6

3.6

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.5

8.6

BOD₅ mg/l

0.5

2.2

TOTAL CAPITAL COST (\$)

2,150,000

4,475,000

ANNUAL O&M COST (\$)

82,000

255,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

37281

37281

REMOVED, LBS.

33313.8

23036.9

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

24,000

72,400

TREATMENT COST (¢/1000 gals)

8.6

21.7

STORMWATER MANAGEMENT STUDY

IPSWICH RIVER BASIN

TOWN NORTH ANDOVER

URBAN DRAINAGE AREA

YEAR 2000

ACRES 734

TOTAL STORM RUNOFF VOL.

MIL. GAL. 18.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 155

SUSP. SOLIDS, LBS. 1868

BOD₅ 275

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

12.7

12.7

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

147.2

147.2

SUSP. SOLIDS, LBS.

1681.2

1214.2

BOD₅, LBS.

233.8

110

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

7.8

7.8

SUSP. SOLIDS, LBS.

186.8

653.8

BOD₅, LBS.

41.2

165

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.0

1.0

SUSP. SOLIDS mg/l

12.1

12.1

BOD₅ mg/l

1.8

1.8

AFTER TREATMENT

SETT. SOLIDS mg/l

0.05

0.05

SUSP. SOLIDS mg/l

1.2

4.2

BOD₅ mg/l

0.3

1.0

TOTAL CAPITAL COST (\$)

425,000

1,400,000

ANNUAL O&M COST (\$)

10,000

30,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

2143

2143

REMOVED, LBS.

1915

1324.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

4,800

22,700

TREATMENT COST (\$/1000 gals)

13.7

42.7

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN NORTH READING

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2906

TOTAL STORM RUNOFF VOL.

MIL. GAL. 89.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1214

SUSP. SOLIDS, LBS. 14421

BOD₅ 2121

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

61.5

61.5

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1153.3

1153.3

SUSP. SOLIDS, LBS.

12978.9

9373.6

BOD₅, LBS.

1802.8

848.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

60.7

60.7

SUSP. SOLIDS, LBS.

1442.1

5047.4

BOD₅, LBS.

318.2

1272.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.6

1.6

SUSP. SOLIDS mg/l

19.3

19.3

BOD₅ mg/l

2.8

2.8

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08

0.08

SUSP. SOLIDS mg/l

1.9

6.7

BOD₅ mg/l

0.4

1.7

TOTAL CAPITAL COST (\$)

1,375,000 3,200,000

ANNUAL O&M COST (\$)

46,000 150,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

16542

16542

REMOVED, LBS.

14781.7

10222

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

15,400

52,600

TREATMENT COST (¢/1000 gals)

9.6

24.8

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN PEABODY

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1286

TOTAL STORM RUNOFF VOL.

MIL. GAL.	34.2
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	450
SUSP. SOLIDS, LBS.	5392
BOD ₅	793

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	23.5	23.5	23.5
% TREATED	68.7	68.7	68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	427.5	427.5	405
SUSP. SOLIDS, LBS.	4852.8	3504.8	2426.4
BOD ₅ , LBS.	674	317.2	158.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	22.5	22.5	45
SUSP. SOLIDS, LBS.	539.2	1887.2	2965.6
BOD ₅ , LBS.	119.0	475.8	634.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.6	1.6	1.6
SUSP. SOLIDS mg/l	18.9	18.9	18.9
BOD ₅ mg/l	2.8	2.8	2.8
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.08	0.08	0.2
SUSP. SOLIDS mg/l	1.9	6.6	10.4
BOD ₅ mg/l	0.4	1.7	2.2

TOTAL CAPITAL COST (\$)

700,000	1,950,000	3,500,000
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ANNUAL O&M COST (\$)

18,000	55,000	175,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	6185	6185	6185
REMOVED, LBS.	5526.8	3822	2585
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

7,800	31,600	84,000
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TREATMENT COST (¢/1000 gals)

11.9	34.0	75.4
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STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN	READING	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1045	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	32.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	445	
SUSP. SOLIDS, LBS.	5311	
BOD ₅	780	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	22.0	22.0
% TREATED	68.8	68.8
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	422.8	422.8
SUSP. SOLIDS, LBS.	4779.9	3452.2
BOD ₅ , LBS.	663	312
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	22.2	22.2
SUSP. SOLIDS, LBS.	531.1	1858.8
BOD ₅ , LBS.	117	468
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	19.9	19.9
BOD ₅ mg/l	2.9	2.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	2.0	7.0
BOD ₅ mg/l	0.4	1.8
TOTAL CAPITAL COST (\$)	650,000	1,900,000
ANNUAL O&M COST (\$)	17,000	55,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	6091	6091
REMOVED, LBS.	5442.9	3764.2
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	7,300	30,700
TREATMENT COST (¢/1000 gals)	12.0	34.5

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN TEWKSBURY

URBAN DRAINAGE AREA

YEAR	2000
ACRES	142

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	3.8

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	42
SUSP. SOLIDS, LBS.	509
BOD ₅	75

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	42
SUSP. SOLIDS, LBS.	509
BOD ₅ , LBS.	75

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.3
SUSP. SOLIDS mg/l	16.1
BOD ₅ mg/l	2.4

AFTER TREATMENT

SETT. SOLIDS mg/l	1.3
SUSP. SOLIDS mg/l	16.1
BOD ₅ mg/l	2.4

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	584
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REMOVED, LBS.	-
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% REMOVED	-
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CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN TOPSFIELD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3017

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	80.5

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	752
SUSP. SOLIDS, LBS.	7569
BOD ₅	1114

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	55.2	55.2
% TREATED	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	714.4	714.4
SUSP. SOLIDS, LBS.	6812.1	4919.9
BOD ₅ , LBS.	946.9	445.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	37.6	37.6
SUSP. SOLIDS, LBS.	756.9	2649.1
BOD ₅ , LBS.	167.1	668.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.1	1.1
SUSP. SOLIDS mg/l	11.3	11.3
BOD ₅ mg/l	1.7	1.7
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.1	3.9
BOD ₅ mg/l	0.2	1.0

TOTAL CAPITAL COST (\$)	1,275,000	3,000,000
ANNUAL O&M COST (\$)	41,000	130,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	8683	8683
REMOVED, LBS.	7759	5365.5
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	14,300	48,500
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TREATMENT COST (¢/1000 gals)	9.8	25.5
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STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN WENHAM

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1781

TOTAL STORM RUNOFF VOL.

MIL. GAL. 49.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 433

SUSP. SOLIDS, LBS. 5174

BOD₅ 761

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG SP SMD

% TREATED 68.5 68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 411.4 411.4

SUSP. SOLIDS, LBS. 4656.6 3363.1

BOD₅, LBS. 646.8 304.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 21.6 21.6

SUSP. SOLIDS, LBS. 517.4 1810.9

BOD₅, LBS. 114.2 456.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.0 1.0

SUSP. SOLIDS mg/l 12.4 12.4

BOD₅ mg/l 1.8 1.8

AFTER TREATMENT

SETT. SOLIDS mg/l 0.05 0.05

SUSP. SOLIDS mg/l 1.2 4.4

BOD₅ mg/l 0.3 1.1

TOTAL CAPITAL COST (\$) 875,000 2,250,000

ANNUAL O&M COST (\$) 25,000 80,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 5935 5935

REMOVED, LBS. 5303.4 3667.5

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$) 9,800 36,400

TREATMENT COST (¢/1000 gals) 10.8 29.2

STORMWATER MANAGEMENT SUMMARY

IPSWICH RIVER BASIN

TOWN WILMINGTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 4797

TOTAL STORM RUNOFF VOL.

MIL. GAL. 181.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 3756

SUSP. SOLIDS, LBS. 44554

BOD₅ 6550

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

124.5

124.5

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

3568.2

3568.2

SUSP. SOLIDS, LBS.

40098.6

28960.1

BOD₅, LBS.

5567.5

2620

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

187.8

187.8

SUSP. SOLIDS, LBS.

4455.4

15593.9

BOD₅, LBS.

982.5

3930

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.5

2.5

SUSP. SOLIDS mg/l

29.4

29.4

BOD₅ mg/l

4.3

4.3

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.9

10.3

BOD₅ mg/l

0.6

2.6

TOTAL CAPITAL COST (\$)

2,400,000 4,850,000

ANNUAL O&M COST (\$)

93,000 290,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

51104

51104

REMOVED, LBS.

45,666.1

31580.1

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

26,800

78,500

TREATMENT COST (¢/1000 gals)

8.5

21.0

STORMWATER MANAGEMENT SUMMARY

CAPE ANN

LOCAL NO. 1

TOWN GLOUCESTER

URBAN DRAINAGE AREA

YEAR	2000
ACRES	830

TOTAL STORM RUNOFF VOL.

MIL. GAL.	21.9
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	229
SUSP. SOLIDS, LBS.	2745
BOD ₅	404

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	15.0	15.0
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	217.5	217.5
SUSP. SOLIDS, LBS.	2470.5	1784.2
BOD ₅ , LBS.	343.4	161.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	11.5	11.5
SUSP. SOLIDS, LBS.	274.5	960.8
BOD ₅ , LBS.	60.6	242.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.3	1.3
SUSP. SOLIDS mg/l	15.0	15.0
BOD ₅ mg/l	2.2	2.2
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.5	5.3
BOD ₅ mg/l	0.3	1.3

TOTAL CAPITAL COST (\$)

500,000	11,000
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ANNUAL O&M COST (\$)

1,500,000	35,000
-----------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	3149	3149
REMOVED, LBS.	2813.9	1945.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

5,600	24,300
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TREATMENT COST (¢/1000 gals)

15.0	33.1
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STORMWATER MANAGEMENT SUMMARY

CAPE ANN

LOCAL NO. 1

TOWN	ROCKPORT		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1689		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	53.2		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	742		
SUSP. SOLIDS, LBS.	8856		
BOD ₅	1302		
STORMWATER TREATMENT			
TREAT. DESCRIP.		SP	SMD
VOLUME TREAT., MG		36.5	36.5
% TREATED		68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.		704.9	704.9
SUSP. SOLIDS, LBS.		7970.4	5756.4
BOD ₅ , LBS.		1106.7	520.8
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.		37.1	37.1
SUSP. SOLIDS, LBS.		885.6	3099.6
BOD ₅ , LBS.		195.3	781.2
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l		1.7	1.7
SUSP. SOLIDS mg/l		20.0	20.0
BOD ₅ mg/l		2.9	2.9
AFTER TREATMENT			
SETT. SOLIDS mg/l		0.08	0.08
SUSP. SOLIDS mg/l		2.0	7.0
BOD ₅ mg/l		0.4	1.8
TOTAL CAPITAL COST (\$)	975,000	2,425,000	
ANNUAL O&M COST (\$)	27,000	85,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	10158	10158	
REMOVED, LBS.	9077.1	6277.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	10,900	39,200	
TREATMENT COST (¢/1000 gals)	10.7	28.7	

STORMWATER MANAGEMENT SUMMARY

MANCHESTER HARBOR AREA

LOCAL NO. 2

TOWN BEVERLY

URBAN DRAINAGE AREA

YEAR 2000

ACRES 625

TOTAL STORM RUNOFF VOL.

MIL. GAL. 19.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 283

SUSP. SOLIDS, LBS. 3378

BOD₅ 497

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

13.0

13.0

13.0

% TREATED

68.4

68.4

68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

268.8

268.8

254.7

SUSP. SOLIDS, LBS.

3040.2

2195.7

1520.1

BOD₅, LBS.

442.5

198.8

99.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

14.2

14.2

28.3

SUSP. SOLIDS, LBS.

337.8

1182.3

1857.9

BOD₅, LBS.

74.5

298.2

397.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.8

1.8

1.8

SUSP. SOLIDS mg/l

21.3

21.3

21.3

BOD₅ mg/l

3.1

3.1

3.1

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

0.2

SUSP. SOLIDS mg/l

2.1

7.5

11.7

BOD₅ mg/l

0.5

1.9

2.5

TOTAL CAPITAL COST (\$)

425,000

1,400,000

2,000,000

ANNUAL O&M COST (\$)

10,000

30,000

100,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

3875

3875

3875

REMOVED, LBS.

3462.7

2394.5

1619.5

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

4,800

22,700

48,000

TREATMENT COST (¢/1000 gals)

13.7

14.7

80.4

STORMWATER MANAGEMENT SUMMARY

MANCHESTER HARBOR AREA

LOCAL NO. 2

TOWN GLOUCESTER

URBAN DRAINAGE AREA

YEAR	2000
ACRES	337

TOTAL STORM RUNOFF VOL.

MIL. GAL.	9.2
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	119
SUSP. SOLIDS, LBS.	1421
BOD ₅	209

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	6.3	6.3
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	113.0	113.0
SUSP. SOLIDS, LBS.	1278.9	923.6
BOD ₅ , LBS.	177.6	83.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	6	6
SUSP. SOLIDS, LBS.	142.1	497.4
BOD ₅ , LBS.	31.4	125.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.6	1.6
SUSP. SOLIDS mg/l	18.5	18.5
BOD ₅ mg/l	2.7	2.7

AFTER TREATMENT

SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	1.9	6.5
BOD ₅ mg/l	0.4	1.6

TOTAL CAPITAL COST (\$)

250,000	1,050,000
---------	-----------

ANNUAL O&M COST (\$)

5,000	14,000
-------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	1630	1630
REMOVED, LBS.	1456.5	1007.2
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

2,800	17,000
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TREATMENT COST (¢/1000 gals)

15.2	59.2
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LOCAL NO. 2

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

MANCHESTER HARBOF. ARFA

LOCAL NO. 2

TOWN WENHAM

URBAN DRAINAGE AREA

YEAR 2000

ACRES 72

TOTAL STORM RUNOFF VOL.

MIL. GAL. 1.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 23

SUSP. SOLIDS, LBS. 282

BOD₅ 41

STORMWATER TREATMENT

TREAT. DESCRIP. NT

VOLUME TREAT., MG -

% TREATED -

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. -

SUSP. SOLIDS, LBS. -

BOD₅, LBS. -

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 23

SUSP. SOLIDS, LBS. 282

BOD₅, LBS. 41

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.5

SUSP. SOLIDS mg/l 18.8

BOD₅ mg/l 2.7

AFTER TREATMENT

SETT. SOLIDS mg/l 1.5

SUSP. SOLIDS mg/l 18.8

BOD₅ mg/l 2.7

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 323

REMOVED, LBS. -

% REMOVED -

CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

LOCAL NO. 3

URBAN DRAINAGE AREA

ACRES 1739

MIL. GAL.	64.7
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SETT. SOLIDS, LBS. 1269

SUSP. SOLIDS, LBS.	15085
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BOD5	2217
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TREAT. DESCRIP.	SP	SMD	MD
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	SI	SI+D	AD
VOLUME TREAT., MG	44.4	44.4	44.4

% TREATED	68.6	68.6	68.6
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SETT. SOLIDS, LBS.	1205.5	1205.5	1142.1
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SUSP. SOLIDS, LBS.	13576.5	9805.2	6788.2
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BOD ₅ , LBS.	1884.5	886.8	443.4
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SETT. SOLIDS, LBS.	63.5	63.5	126.9
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SUSP. SOLIDS, LBS.	1508.5	5279.8	8296.8
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BOD ₅ , LBS.	332.5	1330.2	1773.6
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BEFORE TREATMENT

SETT. SOLIDS mg/l	2.4	2.4	2.4
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SERP. SOLIDS mg/l	2.4	2.4	2.4
SUSP. SOLIDS mg/l	28.0	28.0	28.0

BOD ₅ mg/l	4.1	4.1	4.1
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AFTER TREATMENT

SETT. SOLIDS mg/l	0.1	0.1	0.2
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SUSP. SOLIDS mg/l	2.8	9.8	15.4
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BOD ₅ mg/l	0.6	2.5	3.3
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TOTAL CAPITAL COST (\$)	1,100,000	2,650,000	6,500,000
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ANNUAL O&M COST (\$)	33,000	105,000	325,000
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BEFORE TREATMENT, LBS.	17302	17302	17302
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BEFORE TREATMENT, LBS.	15461.0	10692.0	7231.6
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% REMOVED	89.4	61.8	41.8
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CAPITAL COSTS/% REMOVAL (\$)	12,300	42,900	156,000
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TREATMENT COST (\$/1000 gals)	10.2	27.0	75.7
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STORMWATER MANAGEMENT SUMMARY
MARBLEHEAD HARBOR - LYNN HARBOR AREA

LOCAL NO. 3

TOWN	MARBLEHEAD		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1219		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	36.8		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	493		
SUSP. SOLIDS, LBS.	5890		
BOD ₅	866		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	25.3	25.3	
% TREATED	68.7	68.7	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	468.4	468.4	
SUSP. SOLIDS, LBS.	5301	3828.5	
BOD ₅ , LBS.	736.1	346.4	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	24.6	24.6	
SUSP. SOLIDS, LBS.	589	2061.5	
BOD ₅ , LBS.	129.9	519.6	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.6	1.6	
SUSP. SOLIDS mg/l	19.2	19.2	
BOD ₅ mg/l	2.8	2.8	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.08	0.08	
SUSP. SOLIDS mg/l	1.9	6.7	
BOD ₅ mg/l	0.4	1.7	
TOTAL CAPITAL COST (\$)	740,000	2,050,000	
ANNUAL O&M COST (\$)	19,000	60,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	6756	6756	
REMOVED, LBS.	6037.1	4174.9	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	8,300	33,200	
TREATMENT COST (¢/1000 gals)	11.7	33.6	

STORMWATER MANAGEMENT SUMMARY
MARBLEHEAD HARBOR - LYNN HARBOR AREA

LOCAL NO. 3

TOWN NAHANT

URBAN DRAINAGE AREA

YEAR 2000
ACRES 417

TOTAL STORM RUNOFF VOL.
MIL. GAL. 12.8

TOTAL STORMWATER POLLUTANTS
SETT. SOLIDS, LBS. 183
SUSP. SOLIDS, LBS. 2192
BOD₅ 322

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	8.8	8.8
% TREATED	68.7	68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	173.8	173.8
SUSP. SOLIDS, LBS.	1972.8	1424.8
BOD ₅ , LBS.	273.7	128.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	9.2	9.2
SUSP. SOLIDS, LBS.	219.2	767.2
BOD ₅ , LBS.	48.3	193.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	20.5	20.5
BOD ₅ mg/l	3.0	3.0
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.1	7.2
BOD ₅ mg/l	0.5	1.8

TOTAL CAPITAL COST (\$)	325,000	1,250,000
ANNUAL O&M COST (\$)	7,000	24,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	2514	2514
REMOVED, LBS.	2246.5	1553.6
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	3,600	20,200
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TREATMENT COST (¢/1000 gals)	14.3	53.8
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STORMWATER MANAGEMENT SUMMARY

MARBLEHEAD HARBOR - LYNN HARBOR AREA

LOCAL NO. 3

TOWN	SWAMPSCOTT	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1023	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	34.9	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	648	
SUSP. SOLIDS, LBS.	7715	
BOD ₅	1134	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	23.9	23.9
% TREATED	68.5	68.5
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	615.6	615.6
SUSP. SOLIDS, LBS.	6943.5	5014.8
BOD ₅ , LBS.	963.9	453.6
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	32.4	32.4
SUSP. SOLIDS, LBS.	771.5	2700.2
BOD ₅ , LBS.	170.1	680.4
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.2	2.2
SUSP. SOLIDS mg/l	26.5	26.5
BOD ₅ mg/l	3.9	3.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.7	9.3
BOD ₅ mg/l	0.6	2.3
TOTAL CAPITAL COST (\$)	700,000	1,950,000
ANNUAL O&M COST (\$)	18,000	55,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	8849	8849
REMOVED, LBS.	7907.4	5468.4
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	7,800	31,600
TREATMENT COST (¢/1000 gals)	11.9	33.8

STORMWATER MANAGEMENT SUMMARY

BOSTON HARBOR

LOCAL NO. 4

TOWN REVERE

URBAN DRAINAGE AREA

YEAR 2000

ACRES 339

TOTAL STORM RUNOFF VOL.

MIL. GAL. 13.2

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 283

SUSP. SOLIDS, LBS. 3361

BOD₅ 494

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

9.0

9.0

% TREATED

68.2

68.2

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

268.8

268.8

SUSP. SOLIDS, LBS.

3024.9

2184.6

BOD₅, LBS.

419.9

197.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

14.2

14.2

SUSP. SOLIDS, LBS.

336.1

1176.4

BOD₅, LBS.

74.1

296.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.6

2.6

SUSP. SOLIDS mg/l

30.5

30.5

BOD₅ mg/l

4.5

4.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

3.1

10.7

BOD₅ mg/l

0.7

2.7

TOTAL CAPITAL COST (\$)

325,000

1,250,000

ANNUAL O&M COST (\$)

7,000

24,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

3855

3855

REMOVED, LBS.

3444.8

2382.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

3,600

20,200

TREATMENT COST (¢/1000 gals)

14.3

52.6

STORMWATER MANAGEMENT SUMMARY

BOSTON HARBOR

LOCAL NO. 4

TOWN WINTHROP

URBAN DRAINAGE AREA

YEAR 2000

ACRES 476

TOTAL STORM RUNOFF VOL.

MIL. GAL. 18.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 363

SUSP. SOLIDS, LBS. 4328

BOD₅ 637

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

12.3

12.3

12.3

% TREATED

68.3

68.3

68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

344.8

344.8

326.7

SUSP. SOLIDS, LBS.

3895.2

2813.2

1947.6

BOD₅, LBS.

541.5

254.8

127.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

18.2

18.2

36.3

SUSP. SOLIDS, LBS.

432.8

1514.8

2380.4

BOD₅, LBS.

95.5

382.2

509.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.4

2.4

2.4

SUSP. SOLIDS mg/l

28.8

28.8

28.8

BOD₅ mg/l

4.2

4.2

4.2

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.9

10.1

15.9

BOD₅ mg/l

0.6

2.5

3.4

TOTAL CAPITAL COST (\$)

400,000

1,400,000

1,750,000

ANNUAL O&M COST (\$)

9,000

30,000

88,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

4965

4965

4965

REMOVED, LBS.

4436.7

3068

2075

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

4,500

22,700

42,000

TREATMENT COST (¢/1000 gals)

13.7

44.1

80.9

STORMWATER MANAGEMENT SUMMARY

QUINCY BAY

LOCAL NO. 6

TOWN MILTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	222

TOTAL STORM RUNOFF VOL.

MIL. GAL.	6.3
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	82
SUSP. SOLIDS, LBS.	983
BOD ₅	144

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP	SMD
VOLUME TREAT., MG	-	4.3	4.3
% TREATED	-	68.3	68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	77.9	77.9
SUSP. SOLIDS, LBS.	-	884.7	639
BOD ₅ , LBS.	-	122.4	57.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	82	4.1	4.1
SUSP. SOLIDS, LBS.	983	98.3	344
BOD ₅ , LBS.	144	21.6	86.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.6	1.6	1.6
SUSP. SOLIDS mg/l	18.7	18.7	18.7
BOD ₅ mg/l	2.7	2.7	2.7

AFTER TREATMENT

SETT. SOLIDS mg/l	1.6	0.08	0.08
SUSP. SOLIDS mg/l	18.7	1.9	6.5
BOD ₅ mg/l	2.7	0.4	1.6

TOTAL CAPITAL COST (\$)

-	200,000	900,000
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ANNUAL O&M COST (\$)

-	5,000	10,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	1127	1127	1127
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REMOVED, LBS.	-	1007.1	696.6
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% REMOVED	-	89.4	61.8
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CAPITAL COSTS/% REMOVAL (\$)

-	2,200	14,600
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TREATMENT COST (¢/1000 gals)

-	16.5	72.5
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STORMWATER MANAGEMENT SUMMARY

QUINCY BAY

LOCAL NO. 6

TOWN	QUINCY			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	1802			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	62.1			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	1293			
SUSP. SOLIDS, LBS.	15413			
BOD ₅	2266			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	42.0	42.6	42.6	
% TREATED	68.6	68.6	68.6	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	1228.4	1228.4	1163.7	
SUSP. SOLIDS, LBS.	13871.7	10018.5	6935.8	
BOD ₅ , LBS.	1926.1	906.4	453.2	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	64.6	64.6	129.3	
SUSP. SOLIDS, LBS.	1541.3	5394.5	8477.2	
BOD ₅ , LBS.	339.9	1359.6	1812.8	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.5	2.5	2.5	
SUSP. SOLIDS mg/l	29.8	29.8	29.8	
BOD ₅ mg/l	4.4	4.4	4.4	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	3.0	10.4	16.4	
BOD ₅ mg/l	0.7	2.6	3.5	
TOTAL CAPITAL COST (\$)	1,040,000	2,525,000	6,000,000	
ANNUAL O&M COST (\$)	31,000	100,000	300,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	17679	17679	17679	
REMOVED, LBS.	15797.8	10924.9	7389	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	11,600	40,900	144,000	
TREATMENT COST (¢/1000 gals)	10.2	27.3	75.8	

STORMWATER MANAGEMENT SUMMARY

HINGHAM-HULL BAY LOCAL NO. 7

TOWN COHASSET

URBAN DRAINAGE AREA

YEAR 2000

ACRES 433

TOTAL STORM RUNOFF VOL.

MIL. GAL. 12.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 122

SUSP. SOLIDS, LBS. 1462

BOD₅ 215

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

8.4

8.4

% TREATED

68.3

68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

115.9

115.9

SUSP. SOLIDS, LBS.

1315.8

950.3

BOD₅, LBS.

182.8

86

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

6.1

6.1

SUSP. SOLIDS, LBS.

146.2

511.7

BOD₅, LBS.

32.2

129

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.2

1.2

SUSP. SOLIDS mg/l

14.3

14.3

BOD₅ mg/l

2.1

2.1

AFTER TREATMENT

SETT. SOLIDS mg/l

0.06

0.06

SUSP. SOLIDS mg/l

1.4

5.0

BOD₅ mg/l

0.3

1.3

TOTAL CAPITAL COST (\$)

290,000

1,200,000

ANNUAL O&M COST (\$)

6,000

18,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

1677

1677

REMOVED, LBS.

1498.6

1036.3

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

3,200

19,400

TREATMENT COST (¢/1000 gals)

14.3

51.7

STORMWATER MANAGEMENT SUMMARY

HINGHAM HARBOR - HULL BAY

LOCAL NO. 7

TOWN	HINGHAM	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	4000	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	119.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	1601	
SUSP. SOLIDS, LBS.	19089	
BOD ₅	2807	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	81.7	81.7
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	1521	1521
SUSP. SOLIDS, LBS.	17180.1	12407.8
BOD ₅ , LBS.	2386	1122.8
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	80	80
SUSP. SOLIDS, LBS.	1908.9	6681.2
BOD ₅ , LBS.	421	1684.2
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.6	1.6
SUSP. SOLIDS mg/l	19.2	19.2
BOD ₅ mg/l	2.8	2.8
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	1.9	6.7
BOD ₅ mg/l	0.4	1.7
TOTAL CAPITAL COST (\$)	1,725,000	3,750,000
ANNUAL O&M COST (\$)	61,000	195,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	21896	21896
REMOVED, LBS.	19566.1	13530.6
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	19,300	60,700
TREATMENT COST (¢/1000 gals)	9.0	23.2

STORMWATER MANAGEMENT SUMMARY

HINGHAM HARBOR-HULL BAY LOCAN NO. 7

TOWN HULL

URBAN DRAINAGE AREA

YEAR 2000

ACRES 904

TOTAL STORM RUNOFF VOL.

MIL. GAL. 29.6

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 661

SUSP. SOLIDS, LBS. 7896

BOD₅ 1161

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

20.3

20.3

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

628

628

SUSP. SOLIDS, LBS.

7106.4

5132.4

BOD₅, LBS.

986.8

464.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

33

33

SUSP. SOLIDS, LBS.

789.6

2763.6

BOD₅, LBS.

174.2

696.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.7

2.7

SUSP. SOLIDS mg/l

32.0

32.0

BOD₅ mg/l

4.7

4.7

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

3.2

11.2

BOD₅ mg/l

0.7

2.8

TOTAL CAPITAL COST (\$)

635,000

1,850,000

ANNUAL O&M COST (\$)

16,000

55,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

9057

9057

REMOVED, LBS.

8093.2

5596.8

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

7,100

29,900

TREATMENT COST (¢/1000 gals)

14.8

38.2

STORMWATER MANAGEMENT SUMMARY

HINGHAM HARBOR - HULL BAY

LOCAL NO. 7

TOWN NORWELL

URBAN DRAINAGE AREA

YEAR 2000

ACRES 174

TOTAL STORM RUNOFF VOL.

MIL. GAL. 5.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 72

SUSP. SOLIDS, LBS. 856

BOD₅ 126

STORMWATER TREATMENT

TREAT. DESCRIP. NT SP SMD

VOLUME TREAT., MG - 3.9 3.9

% TREATED - 68.4 68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. - 68.4 68.4

SUSP. SOLIDS, LBS. - 770.4 556.4

BOD₅, LBS. - 107.1 50.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 72 3.6 3.6

SUSP. SOLIDS, LBS. 856 85.6 299.6

BOD₅, LBS. 126 18.9 75.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.5 1.5 1.5

SUSP. SOLIDS mg/l 18.0 18.0 18.0

BOD₅ mg/l 2.7 2.7 2.7

AFTER TREATMENT

SETT. SOLIDS mg/l 1.5 0.08 0.08

SUSP. SOLIDS mg/l 18.0 1.8 6.3

BOD₅ mg/l 1.5 0.4 1.6

TOTAL CAPITAL COST (\$)

- 190,000 800,000

ANNUAL O&M COST (\$)

- 4,000 10,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 982 982 982

REMOVED, LBS. - 877.5 606.8

% REMOVED - 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

- 2,100 12,900

TREATMENT COST (¢/1000 gals)

- 20.4 72.2

STORMWATER MANAGEMENT SUMMARY

HINGHAM HARBOR - HULL BAY

LOCAL NO. 7

TOWN ROCKLAND

URBAN DRAINAGE AREA

YEAR	2000
ACRES	107

TOTAL STORM RUNOFF VOL.

MIL. GAL.	2.3
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	21
SUSP. SOLIDS, LBS.	258
BOD ₅	38

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	21
SUSP. SOLIDS, LBS.	258
BOD ₅ , LBS.	38

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	1.1
SUSP. SOLIDS mg/l	13.5
BOD ₅ mg/l	2.0
AFTER TREATMENT	
SETT. SOLIDS mg/l	1.1
SUSP. SOLIDS mg/l	13.5
BOD ₅ mg/l	2.0

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	296
REMOVED, LBS.	-
% REMOVED	-

CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

STORMWATER MANAGEMENT SUMMARY

HINGHAM HARBOR - HULL BAY

LOCAL NO. 7

TOWN WEYMOUTH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 274

TOTAL STORM RUNOFF VOL.

MIL. GAL. 7.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 88

SUSP. SOLIDS, LBS. 1053

BOD₅ 155

STORMWATER TREATMENT

TREAT. DESCRIP. SP SMD

VOLUME TREAT., MG 5.3 5.3

% TREATED 68.8 68.8

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 83.6 83.6

SUSP. SOLIDS, LBS. 947.7 684.5

BOD₅, LBS. 131.8 62

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 4.4 4.4

SUSP. SOLIDS, LBS. 105.3 368.5

BOD₅, LBS. 23.2 93

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.4 1.4

SUSP. SOLIDS mg/l 16.4 16.4

BOD₅ mg/l 2.4 2.4

AFTER TREATMENT

SETT. SOLIDS mg/l 0.07 0.07

SUSP. SOLIDS mg/l 1.6 5.7

BOD₅ mg/l 0.4 1.4

TOTAL CAPITAL COST (\$)

200,000 950,000

ANNUAL O&M COST (\$)

5,000 11,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 1208 1208

REMOVED, LBS. 1079.5 746.5

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

2,200 15,400

TREATMENT COST (¢/1000 gals)

16.5 62.4

STORMWATER MANAGEMENT SUMMARY
 COHASSET HARBOR - SCITUATE HARBOR
 LOCAL NO. 8

TOWN	COHASSET	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2633	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	73.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	657	
SUSP. SOLIDS, LBS.	7871	
BOD ₅	1158	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	50.1	50.1
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	624.2	624.2
SUSP. SOLIDS, LBS.	7083.9	5116.2
BOD ₅ , LBS.	984.3	463.2
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	32.8	32.8
SUSP. SOLIDS, LBS.	787.1	2754.8
BOD ₅ , LBS.	173.7	694.8
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.1	1.1
SUSP. SOLIDS mg/l	12.9	12.9
BOD ₅ mg/l	1.9	1.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.05	0.05
SUSP. SOLIDS mg/l	1.3	4.5
BOD ₅ mg/l	0.3	1.1
TOTAL CAPITAL COST (\$)	1,200,000	2,800,000
ANNUAL O&M COST (\$)	38,000	115,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	9029	9029
REMOVED, LBS.	8068.2	5579.4
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	13,400	45,300
TREATMENT COST (¢/1000 gals)	10.0	26.2

STORMWATER MANAGEMENT SUMMARY
COHASSET HARBOR - SCITUATE HARBOR
LOCAL NO. 8

TOWN	NORWELL		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	170		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	5.6		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	71		
SUSP. SOLIDS, LBS.	844		
BOD ₅	124		
STORMWATER TREATMENT			
TREAT. DESCRIP.	NT	SP	SMD
VOLUME TREAT., MG	-	3.8	3.8
% TREATED	-	67.9	67.9
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	-	67.5	67.5
SUSP. SOLIDS, LBS.	-	759.6	548.6
BOD ₅ , LBS.	-	105.4	49.6
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	71	3.5	3.5
SUSP. SOLIDS, LBS.	844	84.4	295.4
BOD ₅ , LBS.	124	18.6	74.4
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	0.8	0.8	0.8
SUSP. SOLIDS mg/l	9.0	9.0	9.0
BOD ₅ mg/l	1.3	1.3	1.3
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.8	0.04	0.04
SUSP. SOLIDS mg/l	9.0	0.9	3.2
BOD ₅ mg/l	1.3	0.2	0.8
TOTAL CAPITAL COST (\$)	-	190,000	800,000
ANNUAL O&M COST (\$)	-	4,000	10,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	968	968	968
REMOVED, LBS.	-	865	598.2
% REMOVED	-	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	-	2,100	12,900
TREATMENT COST (¢/1000 gals)	-	20.4	72.2

STORMWATER MANAGEMENT SUMMARY
 COHASSET HARBOR - SCITUATE HARBOR
 LOCAL NO. 8

TOWN	SCITUATE		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	4938		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	131.7		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	1042		
SUSP. SOLIDS, LBS.	12491		
BOD ₅	1836		
STORMWATER TREATMENT			
TREAT. DESCRIP.		SP	SMD
VOLUME TREAT., MG		90.3	90.3
% TREATED		68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	989.9		989.9
SUSP. SOLIDS, LBS.	11241.9		8119.2
BOD ₅ , LBS.	1560.6		734.4
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	52.1		52.1
SUSP. SOLIDS, LBS.	1249.1		4371.8
BOD ₅ , LBS.	275.4		1101.6
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	0.9		0.9
SUSP. SOLIDS mg/l	11.4		11.4
BOD ₅ mg/l	1.7		1.7
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.05		0.05
SUSP. SOLIDS mg/l	1.1		4.0
BOD ₅ mg/l	0.3		1.0
TOTAL CAPITAL COST (\$)	1,875,000		4,000,000
ANNUAL O&M COST (\$)	68,000		210,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	14327		14327
REMOVED, LBS.	12802.5		8853.6
% REMOVED	89.4		61.8
CAPITAL COSTS/% REMOVAL (\$)	21,000		64,700
TREATMENT COST (¢/1000 gals)	8.8		22.7

STORMWATER MANAGEMENT SUMMARY

GREEN HARBOR - DUXBURY BAY

LOCAL NO. 9

TOWN DUXBURY

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3817

TOTAL STORM RUNOFF VOL.

MIL. GAL.	104.4
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	940
SUSP. SOLIDS, LBS.	11,252
BOD ₅	1,655

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	71.6	71.6
% TREATED	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	893	893
SUSP. SOLIDS, LBS.	10,126.8	7,313.8
BOD ₅ , LBS.	1,406.8	662

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	47	47
SUSP. SOLIDS, LBS.	1,125.2	3,938.2
BOD ₅ , LBS.	248.2	993

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.1	1.1
SUSP. SOLIDS mg/l	12.9	12.9
BOD ₅ mg/l	1.9	1.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.05	0.05
SUSP. SOLIDS mg/l	1.3	4.5
BOD ₅ mg/l	0.3	1.1

TOTAL CAPITAL COST (\$)

1,500,000	3,400,000
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ANNUAL O&M COST (\$)

52,000	165,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	12,907	12,970
REMOVED, LBS.	11,533.6	7,975.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

16,800	55,000
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TREATMENT COST (¢/1000 gals)

9.2	24.0
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STORMWATER MANAGEMENT SUMMARY

GREEN HARBOR - DUXBURY BAY

LOCAL NO. 9

TOWN	MARSHFIELD		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1218		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	37.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	589		
SUSP. SOLIDS, LBS.	5903		
BOD ₅	869		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	25.4	25.4	
% TREATED	68.6	68.6	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	559.6	559.6	
SUSP. SOLIDS, LBS.	5,312.7	3837	
BOD ₅ , LBS.	738.6	347.6	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	29.4	29.4	
SUSP. SOLIDS, LBS.	590.3	2066	
BOD ₅ , LBS.	130.4	521.4	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.9	1.9	
SUSP. SOLIDS mg/l	19.1	19.1	
BOD ₅ mg/l	2.8	2.8	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	
SUSP. SOLIDS mg/l	1.9	6.7	
BOD ₅ mg/l	0.4	1.7	
TOTAL CAPITAL COST (\$)	750,000	2,000,000	
ANNUAL O&M COST (\$)	19,000	60,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	6772	6772	
REMOVED, LBS.	6051.3	4184.6	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	8,400	32,000	
TREATMENT COST (¢/1000 gals)	11.7	33.0	

STORMWATER MANAGEMENT SUMMARY

GREEN HARBOR - DUXBURY BAY

LOCAL NO. 9

TOWN PEMBROKE

URBAN DRAINAGE AREA

YEAR 2000

ACRES 317

TOTAL STORM RUNOFF VOL.

MIL. GAL. 7.9

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 52

SUSP. SOLIDS, LBS. 625

BOD₅ 92

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

SMD

VOLUME TREAT., MG

-

5.4

5.4

% TREATED

-

68.4

68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

49.4

49.4

SUSP. SOLIDS, LBS.

-

562.5

406.2

BOD₅, LBS.

-

78.2

36.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

52

2.6

2.6

SUSP. SOLIDS, LBS.

625

625

218.8

BOD₅, LBS.

92

13.8

55.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

0.8

0.8

0.8

SUSP. SOLIDS mg/l

9.5

9.5

9.5

BOD₅ mg/l

1.4

1.4

1.4

AFTER TREATMENT

SETT. SOLIDS mg/l

0.8

0.8

0.8

SUSP. SOLIDS mg/l

9.5

0.9

3.3

BOD₅ mg/l

1.4

0.2

0.8

TOTAL CAPITAL COST (\$)

-

200,000

1,000,000

ANNUAL O&M COST (\$)

-

5,000

15,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

717

717

717

REMOVED, LBS.

-

640.7

443.0

% REMOVED

-

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

-

2,200

16,200

TREATMENT COST (¢/1000 gals)

-

19.5

67.0

STORMWATER MANAGEMENT SUMMARY

MERRIMACK RIVER BASIN

TOWN BOXFORD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	175
TOTAL STORM RUNOFF VOL.	
MIL. GAL.	4.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	27
SUSP. SOLIDS, LBS.	324
BOD ₅	48

STORMWATER TREATMENT

TREAT. DESCRIPT.	NT	SP
VOLUME TREAT., MG	-	2.9
% TREATED	-	67.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	25.7
SUSP. SOLIDS, LBS.	-	291.6
BOD ₅ , LBS.	-	40.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	27	1.3
SUSP. SOLIDS, LBS.	324	32.4
BOD ₅ , LBS.	48	7.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	0.8	0.8
SUSP. SOLIDS mg/l	9.0	9.0
BOD ₅ mg/l	1.3	1.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.8	0.04
SUSP. SOLIDS mg/l	9.0	0.9
BOD ₅ mg/l	1.3	0.2

TOTAL CAPITAL COST (\$)	-	150,000
ANNUAL O&M COST (\$)	-	3,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	372	372
REMOVED, LBS.	-	332.4
% REMOVED	-	89.4

CAPITAL COSTS/% REMOVAL (\$)	-	1,700
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TREATMENT COST (¢/1000 gals)	-	20.0
------------------------------	---	------

STORMWATER MANAGEMENT SUMMARY

MERRIMACK RIVER BASIN

TOWN CHELMSFORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1088

TOTAL STORM RUNOFF VOL.

MIL. GAL. 28.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 321

SUSP. SOLIDS, LBS. 3845

BOD₅ 565

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

19.6

19.6

19.6

% TREATED

68.8

68.8

68.8

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

305

305

288.9

SUSP. SOLIDS, LBS.

3,460.5

2,499.2

1,730.2

BOD₅, LBS.

480.2

226

113

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

16

16

32.1

SUSP. SOLIDS, LBS.

384.5

1,345.8

2,114.8

BOD₅, LBS.

84.8

339

452

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.4

1.4

1.4

SUSP. SOLIDS mg/l

16.2

16.2

16.2

BOD₅ mg/l

2.4

2.4

2.4

AFTER TREATMENT

SETT. SOLIDS mg/l

0.07

0.07

0.1

SUSP. SOLIDS mg/l

1.6

5.7

8.9

BOD₅ mg/l

0.4

1.4

1.9

TOTAL CAPITAL COST (\$)

625,000

1,800,000

3,000,000

ANNUAL O&M COST (\$)

15,000

50,000

150,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

4,410

4,410

4,410

REMOVED, LBS.

3,940.7

2,725.2

1,843.2

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

7,000

29,100

72,000

TREATMENT COST (¢/1000 gals)

12.5

38.0

78.5

STORMWATER MANAGEMENT SUMMARY

MERRIMACK RIVER BASIN

TOWN TEWKSBURY

URBAN DRAINAGE AREA

YEAR	2000
------	------

ACRES	940
-------	-----

TOTAL STORM RUNOFF VOL.	340
MIL. GAL.	31.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 516

SETT. SOLIDS, LBS. 516

SUSP. SOLIDS, LBS.	6118
--------------------	------

BOD ₅	900
------------------	-----

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG	21.8	21.8
-------------------	------	------

% TREATED	68.6	68.6
-----------	------	------

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	490.2	490.2
--------------------	-------	-------

SUSP. SOLIDS, LBS.	5,406.2	3,976.7
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BOD ₅ , LBS.	765	360
-------------------------	-----	-----

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	25.8	25.8
--------------------	------	------

SUSP. SOLIDS, LBS.	611.8	2,141.3
--------------------	-------	---------

BOD ₅ , LBS.	135	540
-------------------------	-----	-----

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.9	1.9
-------------------	-----	-----

SUSP. SOLIDS mg/l	23.1	23.1
-------------------	------	------

BOD ₅ mg/l	3.4	3.4
-----------------------	-----	-----

AFTER TREATMENT

SETT. SOLIDS mg/l	0.1	0.1
-------------------	-----	-----

SOL. SOLIDS mg/l	0.2	0.2
SUSP. SOLIDS mg/l	2.3	8.1

BOD ₅ mg/l	0.5	2.0
-----------------------	-----	-----

TOTAL CAPITAL COST (\$)	650,000	1,900,000
-------------------------	---------	-----------

ANNUAL O&M COST (\$)	17,000	55,000
----------------------	--------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	7,018	7,018
------------------------	-------	-------

REMOVED, LBS.	6,271.2	4336.7
---------------	---------	--------

% REMOVED	89.4	61.8
-----------	------	------

CAPITAL COSTS/% REMOVAL (\$)	7,300	30,700
------------------------------	-------	--------

TREATMENT COST (\$/1000 gals)	12.0	34.5
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STORMWATER MANAGEMENT SUMMARY

MERRIMACK RIVER BASIN

TOWN WESTFORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 42

TOTAL STORM RUNOFF VOL.

MIL. GAL. 0.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 9

SUSP. SOLIDS, LBS. 108

BOD₅ 16

STORMWATER TREATMENT

TREAT. DESCRIP. NT

VOLUME TREAT., MG -

% TREATED -

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. -

SUSP. SOLIDS, LBS. -

BOD₅, LBS. -

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 9

SUSP. SOLIDS, LBS. 108

BOD₅, LBS. 16

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.3

SUSP. SOLIDS mg/l 16.2

BOD₅ mg/l 2.4

AFTER TREATMENT

SETT. SOLIDS mg/l 1.3

SUSP. SOLIDS mg/l 16.2

BOD₅ mg/l 2.4

TOTAL CAPITAL COST (\$)

-

ANNUAL O&M COST (\$)

-

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 124

REMOVED, LBS. -

% REMOVED -

CAPITAL COSTS/% REMOVAL (\$)

-

TREATMENT COST (¢/1000 gals)

-

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN ARLINGTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2319

TOTAL STORM RUNOFF VOL.

MIL. GAL. 79.6

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1493

SUSP. SOLIDS, LBS. 17,817

BOD₅ 2619

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

54.6

54.6

54.6

% TREATED

68.6

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1418.4

1418.4

1343.7

SUSP. SOLIDS, LBS.

16035.3

11,581.1

8,017.7

BOD₅, LBS.

2226.1

1047.6

523.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

74.6

74.6

149.3

SUSP. SOLIDS, LBS.

1781.7

6235.9

9799.3

BOD₅, LBS.

392.9

1571.4

2095.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.2

2.2

2.2

SUSP. SOLIDS mg/l

26.8

26.8

26.8

BOD₅ mg/l

3.9

3.9

3.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.7

9.4

14.8

BOD₅ mg/l

0.6

2.4

3.2

TOTAL CAPITAL COST (\$)

1,275,000

3,000,000

8,000,000

ANNUAL O&M COST (\$)

41,000

130,000

400,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

20,436

20,436

20,436

REMOVED, LBS.

18,261.4

12,628.7

8541.5

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

14,300

48,500

191,000

TREATMENT COST (\$/1000 gals)

9.8

25.5

75.0

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN	BELMONT		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1350		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	44.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	980		
SUSP. SOLIDS, LBS.	11,700		
BOD ₅	1721		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	30.5	30.5	30.5
% TREATED	68.7	68.7	68.7
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	931	931	882
SUSP. SOLIDS, LBS.	10530	7605	5265
BOD ₅ , LBS.	1462.9	688.4	344.2
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	49	49	98
SUSP. SOLIDS, LBS.	1170	4095	6435
BOD ₅ , LBS.	258.1	1032.6	1376.8
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.6	2.6	2.6
SUSP. SOLIDS mg/l	31.6	31.6	31.6
BOD ₅ mg/l	4.6	4.6	4.6
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.3
SUSP. SOLIDS mg/l	3.2	11.1	17.4
BOD ₅ mg/l	0.7	2.8	3.7
TOTAL CAPITAL COST (\$)	850,000	2,200,000	4,500,000
ANNUAL O&M COST (\$)	23,000	70,000	225,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	13,421	13,421	13,421
REMOVED, LBS.	11,992.9	8,293.4	5,609.2
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	9,500	34,600	108,000
TREATMENT COST (¢/1000 gals)	11.2	30.8	77.0

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN BURLINGTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	615

TOTAL STORM RUNOFF VOL.

MIL. GAL.	20.1
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	308
--------------------	-----

SUSP. SOLIDS, LBS.	3647
--------------------	------

BOD ₅	536
------------------	-----

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

13.8

13.8

13.8

% TREATED

68.7

68.7

68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

292.6

292.6

277.2

SUSP. SOLIDS, LBS.

3,282.3

2,370.5

1,641.1

BOD₅, LBS.

455.6

214.4

107.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

15.4

15.4

30.8

SUSP. SOLIDS, LBS.

364.7

1,276.5

2,009.9

BOD₅, LBS.

80.4

321.6

428.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.8

1.8

1.8

SUSP. SOLIDS mg/l

21.8

21.8

21.8

BOD₅ mg/l

3.2

3.2

3.2

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

0.2

SUSP. SOLIDS mg/l

2.2

7.6

12.0

BOD₅ mg/l

0.5

1.9

2.6

TOTAL CAPITAL COST (\$)

480,000

1,500,000

2,000,000

ANNUAL O&M COST (\$)

10,000

35,000

100,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

4,183

4,183

4,183

REMOVED, LBS.

3,737.9

2,584.9

1,748.3

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

5,400

24,300

48,000

TREATMENT COST (¢/1000 gals)

13.5

43.0

83.0

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN EVERETT

URBAN DRAINAGE AREA

YEAR 2000

ACRES 970

TOTAL STORM RUNOFF VOL.

MIL. GAL. 39.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 682

SUSP. SOLIDS, LBS. 7997

BOD₅ 1175

STORMWATER TREATMENT

TREAT. DESCIP.

SP

SMD

MD

VOLUME TREAT., MG

27.2

27.2

27.2

% TREATED

68.5

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

647.9

647.9

613.8

SUSP. SOLIDS, LBS.

7197.3

5198

3598.6

BOD₅, LBS.

998.7

470

235

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

34.1

34.1

68.2

SUSP. SOLIDS, LBS.

799.7

2799

4398.4

BOD₅, LBS.

176.3

705

940

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.1

2.1

2.1

SUSP. SOLIDS mg/l

24.2

24.2

24.2

BOD₅ mg/l

3.5

3.5

3.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.4

8.5

13.2

BOD₅ mg/l

0.5

2.1

2.8

TOTAL CAPITAL COST (\$)

750,000

2,100,000

4,000,000

ANNUAL O&M COST (\$)

20,000

65,000

200,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

9172

9172

9172

REMOVED, LBS.

8196

5668

3833.6

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

8,400

34,000

96,000

TREATMENT COST (¢/1000 gals)

11.5

32.3

77.3

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN	MALDEN			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	1209			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	44.9			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	885			
SUSP. SOLIDS, LBS.	10511			
BOD ₅	1545			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	30.8	30.8	30.8	
% TREATED	68.6	68.6	68.6	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	840.8	840.8	796.5	
SUSP. SOLIDS, LBS.	9459.9	6832.2	4730	
BOD ₅ , LBS.	1312.2	618	309	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	44.2	44.2	88.5	
SUSP. SOLIDS, LBS.	1051.1	3678.8	5781	
BOD ₅ , LBS.	231.8	927	1236	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.4	2.4	2.4	
SUSP. SOLIDS mg/l	28.1	28.1	28.1	
BOD ₅ mg/l	4.1	4.1	4.1	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	2.8	9.8	15.4	
BOD ₅ mg/l	0.6	2.5	3.3	
TOTAL CAPITAL COST (\$)	850,000	2,200,000	4,500,000	
ANNUAL O&M COST (\$)	23,000	70,000	225,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	12,056	12,056	12,056	
REMOVED, LBS.	10773.1	7450.2	5039	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	9,500	35,600	108,000	
TREATMENT COST (¢/1000 gals)	11.2	30.8	76.8	

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN MEDFORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3062

TOTAL STORM RUNOFF VOL.

MIL. GAL. 104.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1970

SUSP. SOLIDS, LBS. 23437

BOD₅ 3445

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

71.1

71.1

71.1

% TREATED

68.3

68.3

68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1871.5

1871.5

1773

SUSP. SOLIDS, LBS.

21,093.3

15,234.1

10,546.7

BOD₅, LBS.

2928.3

1378

689

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

98.5

98.5

197

SUSP. SOLIDS, LBS.

2343.7

8202.9

12,890.3

BOD₅, LBS.

516.7

2067

2756

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.3

2.3

2.3

SUSP. SOLIDS mg/l

27.0

27.0

27.0

BOD₅ mg/l

4.0

4.0

4.0

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.7

9.4

14.8

BOD₅ mg/l

0.6

2.4

3.2

TOTAL CAPITAL COST (\$)

1,500,000

3,400,000

10,500,000

ANNUAL O&M COST (\$)

52,000

165,000

525,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

26,882

26,882

26,882

REMOVED, LBS.

24021.6

16,612.1

11,235.7

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

16,800

55,000

251,000

TREATMENT COST (¢/1000 gals)

9.2

24.0

74.2

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN	MELROSE			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	1441			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	51.5			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	1012			
SUSP. SOLIDS, LBS.	12066			
BOD ₅	1774			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	35.3	35.3	35.3	
% TREATED	68.5	68.5	68.5	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	961.4	961.4	910.8	
SUSP. SOLIDS, LBS.	10859.4	7842.9	5429.7	
BOD ₅ , LBS.	1507.9	709.6	354.8	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	50.6	50.6	101.2	
SUSP. SOLIDS, LBS.	1206.6	4223.1	6636.3	
BOD ₅ , LBS.	266.1	1064.4	1419.2	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.4	2.4	2.4	
SUSP. SOLIDS mg/l	28.1	28.1	28.1	
BOD ₅ mg/l	4.1	4.1	4.1	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	2.8	9.8	15.5	
BOD ₅ mg/l	0.6	2.5	3.3	
TOTAL CAPITAL COST (\$)	925,000	2,350,000	5,000,000	
ANNUAL O&M COST (\$)	26,000	85,000	250,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	13,840	13,840	13,840	
REMOVED, LBS.	12,367.3	8,552.5	5784.5	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	10,300	38,000	120,000	
TREATMENT COST (¢/1000 gals)	10.8	29.0	76.4	

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN	READING	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1321	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	42.3	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	623	
SUSP. SOLIDS, LBS.	7410	
BOD ₅	1090	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	29.2	29.2
% TREATED	69.0	69.0
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	591.9	591.9
SUSP. SOLIDS, LBS.	6,669	4,816.5
BOD ₅ , LBS.	926.5	436
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	31.1	31.1
SUSP. SOLIDS, LBS.	741	2,593.5
BOD ₅ , LBS.	163.5	654
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.8	1.8
SUSP. SOLIDS mg/l	21.0	21.0
BOD ₅ mg/l	3.1	3.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.1	7.4
BOD ₅ mg/l	0.5	1.8
TOTAL CAPITAL COST (\$)	775,000	2,100,000
ANNUAL O&M COST (\$)	21,000	65,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	8500	8500
REMOVED, LBS.	7595.5	5252.5
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	8,700	34,000
TREATMENT COST (¢/1000 gals)	11.3	31.2

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN SOMERVILLE

URBAN DRAINAGE AREA

YEAR	2000
ACRES	962

TOTAL STORM RUNOFF VOL.

MIL. GAL.	37.6
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	756
SUSP. SOLIDS, LBS.	8947
BOD ₅	1315

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	25.8	25.8	25.8
% TREATED	68.6	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	718.2	718.2	680.4
SUSP. SOLIDS, LBS.	8052.3	5815.6	4026.2
BOD ₅ , LBS.	1117.7	526	263

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	37.8	37.8	75.6
SUSP. SOLIDS, LBS.	894.7	3131.4	4920.8
BOD ₅ , LBS.	197.3	789	1052

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.4	2.4	2.4
SUSP. SOLIDS mg/l	28.5	28.5	28.5
BOD ₅ mg/l	4.2	4.2	4.2
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.9	10.0	15.7
BOD ₅ mg/l	0.6	2.5	3.4

TOTAL CAPITAL COST (\$)

750,000	2,000,000	3,750,000
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ANNUAL O&M COST (\$)

19,000	60,000	187,500
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	10,262	10,262	10,262
REMOVED, LBS.	9170	6341.6	4289.2
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

8,400	32,400	90,000
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TREATMENT COST (¢/1000 gals)

11.7	33.0	77.5
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STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN WAKEFIELD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1147

TOTAL STORM RUNOFF VOL.

MIL. GAL. 40.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 826

SUSP. SOLIDS, LBS. 9848

BOD₅ 1448

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

28.0

28.0

28.0

% TREATED

68.6

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

784.7

784.7

743.4

SUSP. SOLIDS, LBS.

8,863.2

6,401.2

4,431.6

BOD₅, LBS.

1230.8

579.2

289.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

41.3

41.3

82.6

SUSP. SOLIDS, LBS.

984.8

3446.8

5,416.4

BOD₅, LBS.

217.2

868.8

1158.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.4

2.4

2.4

SUSP. SOLIDS mg/l

28.9

28.9

28.9

BOD₅ mg/l

4.3

4.3

4.3

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.9

10.1

15.9

BOD₅ mg/l

0.6

2.6

3.4

TOTAL CAPITAL COST (\$)

760,000

2,150,000

4,000,000

ANNUAL O&M COST (\$)

21,000

70,000

200,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

11,296

11,296

11,296

REMOVED, LBS.

10,094

6,980.4

4,721.2

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

8,500

34,800

96,000

TREATMENT COST (¢/1000 gals)

11.3

31.5

77.2

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN	WATERTOWN			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	316			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	10.8			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	221			
SUSP. SOLIDS, LBS.	2625			
BOD ₅	386			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	7.4	7.4	7.4	
% TREATED	68.5	68.5	68.5	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	210	210	198.9	
SUSP. SOLIDS, LBS.	2362.5	1706.3	1181.2	
BOD ₅ , LBS.	328.1	154.4	77.2	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	11	11	22.1	
SUSP. SOLIDS, LBS.	262.5	918.7	1443.8	
BOD ₅ , LBS.	57.9	231.6	308.8	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.5	2.5	2.5	
SUSP. SOLIDS mg/l	29.1	29.1	29.1	
BOD ₅ mg/l	4.3	4.3	4.3	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	2.9	10.2	16.0	
BOD ₅ mg/l	0.6	2.6	3.4	
TOTAL CAPITAL COST (\$)	260,000	1,130,000	1,250,000	
ANNUAL O&M COST (\$)	5,000	19,000	63,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	3,011	3,011	3,011	
REMOVED, LBS.	2690.6	1860.7	1258.4	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	2,900	18,300	30,000	
TREATMENT COST (¢/1000 gals)	15.0	56.0	85.0	

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN WILMINGTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 90

TOTAL STORM RUNOFF VOL.

MIL. GAL. 2.9

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 59

SUSP. SOLIDS, LBS. 699

BOD₅ 103

STORMWATER TREATMENT

TREAT. DESCRIP. NT SP

VOLUME TREAT., MG - 2.0

% TREATED - 69.0

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. - 56

SUSP. SOLIDS, LBS. - 629.1

BOD₅, LBS. - 87.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 59 3.0

SUSP. SOLIDS, LBS. 699 69.9

BOD₅, LBS. 103 15.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 2.4 2.4

SUSP. SOLIDS mg/l 28.9 28.9

BOD₅ mg/l 4.3 4.3

AFTER TREATMENT

SETT. SOLIDS mg/l 2.4 0.1

SUSP. SOLIDS mg/l 28.9 2.9

BOD₅ mg/l 4.3 0.6

TOTAL CAPITAL COST (\$)

- 125,000

ANNUAL O&M COST (\$)

- 2,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 802 802

REMOVED, LBS. - 716.7

% REMOVED - 89.4

CAPITAL COSTS/% REMOVAL (\$)

- 1,400

TREATMENT COST (¢/1000 gals)

- 23.0

WASTEWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN WINCHESTER

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2435

TOTAL STORM RUNOFF VOL.

MIL. GAL. 70.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 844

SUSP. SOLIDS, LBS. 10091

BOD₅ 1483

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

48.3

48.3

48.3

% TREATED

68.5

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

801.8

801.8

759.6

SUSP. SOLIDS, LBS.

9,081.9

6559.1

4541

BOD₅, LBS.

1260.5

593.2

296.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

42.2

42.2

84.4

SUSP. SOLIDS, LBS.

1009.1

3531.9

5550

BOD₅, LBS.

222.5

898.8

1186.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.4

1.4

1.4

SUSP. SOLIDS mg/l

17.2

17.2

17.2

BOD₅ mg/l

2.5

2.5

2.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.07

0.07

0.1

SUSP. SOLIDS mg/l

1.7

6.0

9.4

BOD₅ mg/l

0.4

1.5

2.0

TOTAL CAPITAL COST (\$)

1,130,000

2,750,000

7,000,000

ANNUAL O&M COST (\$)

35,000

110,000

350,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

11,574

11,574

11,574

REMOVED, LBS.

10,342.4

7152.3

4837.6

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

11,500

44,500

167,000

TREATMENT COST (¢/1000 gals)

10.0

26.5

75.4

STORMWATER MANAGEMENT SUMMARY

MYSTIC RIVER BASIN

TOWN	WOBURN		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	5362		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	188.6		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	3481		
SUSP. SOLIDS, LBS.	41253		
BOD ₅	6064		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	129.4	129.4	129.4
% TREATED	68.6	68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	3,307	3,307	3,132.9
SUSP. SOLIDS, LBS.	37,127.7	26,814.5	18,563.8
BOD ₅ , LBS.	5,154.4	2,425.6	1,212.8
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	174	174	348.1
SUSP. SOLIDS, LBS.	4,125.3	14,438.5	22,689.2
BOD ₅ , LBS.	909.6	3,638.4	4,851.2
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.2	2.2	2.2
SUSP. SOLIDS mg/l	26.2	26.2	26.2
BOD ₅ mg/l	3.9	3.9	3.9
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.6	9.2	14.4
BOD ₅ mg/l	0.6	2.3	3.1
TOTAL CAPITAL COST (\$)	2,500,000	5,000,000	19,000,000
ANNUAL O&M COST (\$)	96,000	300,000	950,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	47,317.0	47,317.0	47,317.0
REMOVED, LBS.	42,282.1	29,240.1	19,776.6
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	28,000	80,900	455,000
TREATMENT COST (¢/1000 gals)	8.4	21.0	73.0

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN	CANTON		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	5311		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	172.2		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	2606		
SUSP. SOLIDS, LBS.	30928		
BOD ₅	4547		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	116.4	116.4	
% TREATED	67.6	67.6	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	2475.7	2475.7	
SUSP. SOLIDS, LBS.	27835.2	20103.2	
BOD ₅ , LBS.	3865	1818.8	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	130.3	130.3	
SUSP. SOLIDS, LBS.	3092.8	10824.8	
BOD ₅ , LBS.	682	2728.2	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.8	1.8	
SUSP. SOLIDS mg/l	21.5	21.5	
BOD ₅ mg/l	3.2	3.2	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.09	0.09	
SUSP. SOLIDS mg/l	2.2	7.5	
BOD ₅ mg/l	0.5	1.9	
TOTAL CAPITAL COST (\$)	2,300,000	4,650,000	
ANNUAL O&M COST (\$)	87,000	275,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	35475	35475	
REMOVED, LBS.	31700.2	21922.0	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	25,700	75,200	
TREATMENT COST (¢/1000 gals)	8.6	21.3	

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN	DEDHAM		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	2024		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	75.5		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	1413		
SUSP. SOLIDS, LBS.	16797		
BOD ₅	2471		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	51.8	51.8	51.8
% TREATED	68.6	68.6	68.6
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	1342.4	1342.4	1271.7
SUSP. SOLIDS, LBS.	15117.3	10918.1	7558.6
BOD ₅ , LBS.	2100.4	988.4	494.2
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	70.6	70.6	141.3
SUSP. SOLIDS, LBS.	1679.7	5878.9	9238.4
BOD ₅ , LBS.	370.6	1482.6	1976.8
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.2	2.2	2.2
SUSP. SOLIDS mg/l	26.7	26.7	26.7
BOD ₅ mg/l	3.9	3.9	3.9
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.7	9.3	14.7
BOD ₅ mg/l	0.6	2.4	3.1
TOTAL CAPITAL COST (\$)	1,245,000	2,900,000	7,500,000
ANNUAL O&M COST (\$)	39,000	120,000	375,000
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	19268	19268	19268
REMOVED, LBS.	17217.7	11506.5	8052.8
% REMOVED	89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)	13,900	46,900	180,000
TREATMENT COST (¢/1000 gals)	9.8	25.9	75.2

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN	FOXBOROUGH		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	669		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	20.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	226		
SUSP. SOLIDS, LBS.	2699		
BOD ₅	397		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	13.7	13.7	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	214.7	214.7	
SUSP. SOLIDS, LBS.	2429.1	1754.4	
BOD ₅ , LBS.	337.5	158.8	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	11.3	11.3	
SUSP. SOLIDS, LBS.	269.9	944.6	
BOD ₅ , LBS.	59.5	238.2	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.4	1.4	
SUSP. SOLIDS mg/l	16.2	16.2	
BOD ₅ mg/l	2.4	2.4	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.07	0.07	
SUSP. SOLIDS mg/l	1.6	5.7	
BOD ₅ mg/l	0.4	1.4	
TOTAL CAPITAL COST (\$)	480,000	1,500,000	
ANNUAL O&M COST (\$)	10,000	35,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	3096	3096	
REMOVED, LBS.	2766.6	1913.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	5,400	24,300	
TREATMENT COST (¢/1000 gals)	13.5	43.0	

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN	MEDFIELD	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	570	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	15.8	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	142	
SUSP. SOLIDS, LBS.	1701	
BOD ₅	250	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	10.9	10.9
% TREATED	69.0	69.0
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	134.9	134.9
SUSP. SOLIDS, LBS.	1530.9	1105.7
BOD ₅ , LBS.	212.5	100
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	7.1	7.1
SUSP. SOLIDS, LBS.	170.1	595.3
BOD ₅ , LBS.	37.5	150
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.1	1.1
SUSP. SOLIDS mg/l	12.9	12.9
BOD ₅ mg/l	1.9	1.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.05	0.05
SUSP. SOLIDS mg/l	1.3	4.5
BOD ₅ mg/l	0.3	1.1
TOTAL CAPITAL COST (\$)	375,000	1,350,000
ANNUAL O&M COST (\$)	9,000	30,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	1951	1951
REMOVED, LBS.	1743.4	1205.7
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	4,200	21,800
TREATMENT COST (¢/1000 gals)	14.0	48.4

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN	MILTON			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	4551			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	137.8			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	1837			
SUSP. SOLIDS, LBS.	21946			
BOD ₅	3226			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	94.5	94.5	94.5	
% TREATED	68.6	68.6	68.6	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	1745.2	1745.5	1653.3	
SUSP. SOLIDS, LBS.	19751.4	14264.9	9875.7	
BOD ₅ , LBS.	2742.1	1290.4	645.2	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	91.8	91.8	183.7	
SUSP. SOLIDS, LBS.	2194.6	7681.1	12070.3	
BOD ₅ , LBS.	483.9	1935.6	2580.8	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	1.6	1.6	1.6	
SUSP. SOLIDS mg/l	19.1	19.1	19.1	
BOD ₅ mg/l	2.8	2.8	2.8	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.08	0.08	0.2	
SUSP. SOLIDS mg/l	1.9	6.7	10.5	
BOD ₅ mg/l	0.4	1.7	2.2	
TOTAL CAPITAL COST (\$)	1,925,000	4,100,000	14,000,000	
ANNUAL O&M COST (\$)	70,000	225,000	700,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	25,172	25,172	25,172	
REMOVED, LBS.	22493.5	15555.3	10520.9	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	21,500	66,300	335,000	
TREATMENT COST (¢/1000 gals)				
	8.8	22.4	73.6	

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN NORWOOD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3971

TOTAL STORM RUNOFF VOL.

MIL. GAL.	143.6
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	2590
SUSP. SOLIDS, LBS.	30656
BOD ₅	4506

STORMWATER TREATMENT

TREAT. DESCRIP.

	SP	SMD	MD
VOLUME TREAT., MG	98.5	98.5	98.5
% TREATED	68.6	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	2460.5	2460.5	2331
SUSP. SOLIDS, LBS.	27590.4	19926.4	13795.2
BOD ₅ , LBS.	3830.1	1802.4	901.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	129.5	129.5	259
SUSP. SOLIDS, LBS.	3065.6	10729.6	16860.8
BOD ₅ , LBS.	675.9	2703.6	3604.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	2.2	2.2	2.2
SUSP. SOLIDS mg/l	25.6	25.6	25.6
BOD ₅ mg/l	3.8	3.8	3.8

AFTER TREATMENT

SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.6	9.0	14.1
BOD ₅ mg/l	0.6	2.3	3.0

TOTAL CAPITAL COST (\$)

2,000,000	4,200,000	14,500,000
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ANNUAL O&M COST (\$)

73,000	235,000	725,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	35162	35162	35162
REMOVED, LBS.	31420.5	21728.8	14696.4
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

22,400	68,000	347,000
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TREATMENT COST (¢/1000 gals)

8.8	22.2	73.5
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STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN QUINCY

URBAN DRAINAGE AREA

YEAR	2000
ACRES	915

TOTAL STORM RUNOFF VOL.

MIL. GAL.	34.3
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	666
SUSP. SOLIDS, LBS.	7908
BOD ₅	1162

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	23.5	23.5	23.5
% TREATED	68.5	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	632.7	632.7	599.4
SUSP. SOLIDS, LBS.	7117.2	5140.2	3558.8
BOD ₅ , LBS.	987.7	464.8	232.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	33.3	33.3	66.6
SUSP. SOLIDS, LBS.	790.8	2767.8	4349.2
BOD ₅ , LBS.	174.3	697.2	929.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.3	2.3	2.3
SUSP. SOLIDS mg/l	27.6	27.6	27.6
BOD ₅ mg/l	4.1	4.1	4.1
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.8	9.7	15.2
BOD ₅ mg/l	0.6	2.4	3.2

TOTAL CAPITAL COST (\$)

700,000	1,950,000	3,500,000
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ANNUAL O&M COST (\$)

18,000	55,000	175,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	9070	9070	9070
REMOVED, LBS.	8104.9	5605	3791.2
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

7,800	31,600	84,000
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TREATMENT COST (¢/1000 gals)

11.9	34.0	75.4
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STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN RANDOLPH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 167

TOTAL STORM RUNOFF VOL.

MIL. GAL. 4.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 48

SUSP. SOLIDS, LBS. 579

BOD₅ 85

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

VOLUME TREAT., MG

-

2.9

% TREATED

-

67.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

45.6

SUSP. SOLIDS, LBS.

-

521.1

BOD₅, LBS.

-

72.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

48

2.4

SUSP. SOLIDS, LBS.

579

57.9

BOD₅, LBS.

85

12.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.3

1.3

SUSP. SOLIDS mg/l

16.1

16.1

BOD₅ mg/l

2.4

2.4

AFTER TREATMENT

SETT. SOLIDS mg/l

1.3

0.07

SUSP. SOLIDS mg/l

16.1

1.6

BOD₅ mg/l

2.4

0.4

TOTAL CAPITAL COST (\$)

-

150,000

ANNUAL O&M COST (\$)

-

3,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

664

664

REMOVED, LBS.

-

593.3

% REMOVED

-

89.4

CAPITAL COSTS/% REMOVAL (\$)

-

1,700

TREATMENT COST (¢/1000 gals)

20.0

20.0

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN STOUGHTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3364

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	119.5

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	2342
SUSP. SOLIDS, LBS.	27822
BOD ₅	4091

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	79.2	79.2
% TREATED	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	2224.9	2224.9
SUSP. SOLIDS, LBS.	25039.8	18084.3
BOD ₅ , LBS.	3477.4	1636.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	117.1	117.1
SUSP. SOLIDS, LBS.	2782.2	9737.7
BOD ₅ , LBS.	613.6	2454.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.3	2.3
SUSP. SOLIDS mg/l	27.9	27.9
BOD ₅ mg/l	4.1	4.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.8	9.8
BOD ₅ mg/l	0.6	2.5

TOTAL CAPITAL COST (\$)	1,700,000	3,650,000
ANNUAL O&M COST (\$)	59,000	190,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	31913	31913
REMOVED, LBS.	28517.2	19720.7
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	19,000	59,000
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TREATMENT COST (¢/1000 gals)	9.0	23.3
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STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN	WALPOLE		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	5075		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	157.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	2025		
SUSP. SOLIDS, LBS.	24063		
BOD ₅	3538		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	106.6	106.6	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	1923.8	1923.8	
SUSP. SOLIDS, LBS.	21656.7	15641	
BOD ₅ , LBS.	3007.3	1415.2	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	101.2	101.2	
SUSP. SOLIDS, LBS.	2406.3	8422	
BOD ₅ , LBS.	530.7	2122.8	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.5	1.5	
SUSP. SOLIDS mg/l	18.4	18.4	
BOD ₅ mg/l	2.7	2.7	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.08	0.08	
SUSP. SOLIDS mg/l	1.8	6.4	
BOD ₅ mg/l	0.4	1.6	
TOTAL CAPITAL COST (\$)	2,100,000	4,440,000	
ANNUAL O&M COST (\$)	78,000	250,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	27601	27601	
REMOVED, LBS.	24663.4	17056.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	23,500	71,200	
TREATMENT COST (¢/1000 gals)	8.7	21.8	

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN WESTWOOD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3079

TOTAL STORM RUNOFF VOL.

MIL. GAL. 96.9

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1293

SUSP. SOLIDS, LBS. 15357

BOD₅ 2258

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

66.4

66.4

% TREATED

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1228.3

1228.3

SUSP. SOLIDS, LBS.

13821.3

9982

BOD₅, LBS.

1919.3

903.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

64.7

64.7

SUSP. SOLIDS, LBS.

1535.7

5375

BOD₅, LBS.

338.7

1354.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.6

1.6

SUSP. SOLIDS mg/l

19.0

19.0

BOD₅ mg/l

2.8

2.8

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08

0.08

SUSP. SOLIDS mg/l

1.9

6.7

BOD₅ mg/l

0.4

1.7

TOTAL CAPITAL COST (\$)

1,400,000

3,350,000

ANNUAL O&M COST (\$)

50,000

160,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

17615

17615

REMOVED, LBS.

15740.6

10885.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

15,700

54,200

TREATMENT COST (¢/1000 gals)

9.4

24.4

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN ABINGTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 462

TOTAL STORM RUNOFF VOL.

MIL. GAL. 15.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 165

SUSP. SOLIDS, LBS. 1934

BOD₅ 284

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

10.5

10.5

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

156.8

156.8

SUSP. SOLIDS, LBS.

1740.6

1257.1

BOD₅, LBS.

241.4

113.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

8.2

8.2

SUSP. SOLIDS, LBS.

193.4

676.9

BOD₅, LBS.

42.6

170.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.3

1.3

SUSP. SOLIDS mg/l

15.2

15.2

BOD₅ mg/l

2.2

2.2

AFTER TREATMENT

SETT. SOLIDS mg/l

0.06

0.06

SUSP. SOLIDS mg/l

1.5

5.3

BOD₅ mg/l

0.3

1.3

TOTAL CAPITAL COST (\$)

375,000

1,350,000

ANNUAL O&M COST (\$)

9,000

30,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

2218

2218

REMOVED, LBS.

1982

1370.7

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

4,200

21,800

TREATMENT COST (¢/1000 gals)

14.0

50.0

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN	DUXBURY	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	48	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	1.6	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	23	
SUSP. SOLIDS, LBS.	271	
BOD ₅	40	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		23
SUSP. SOLIDS, LBS.		271
BOD ₅ , LBS.		40
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.7
SUSP. SOLIDS mg/l		20.3
BOD ₅ mg/l		3.0
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.7
SUSP. SOLIDS mg/l		20.3
BOD ₅ mg/l		3.0
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		311
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN	HANOVER	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	4415	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	138.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	1404	
SUSP. SOLIDS, LBS.	16684	
BOD ₅	2453	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	94.3	94.3
% TREATED	68.3	68.3
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	1333.8	1333.8
SUSP. SOLIDS, LBS.	15015.6	10844.6
BOD ₅ , LBS.	2085	981.2
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	70.2	70.2
SUSP. SOLIDS, LBS.	1668.4	5839.4
BOD ₅ , LBS.	368	1471.8
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	1.2
SUSP. SOLIDS mg/l	14.5	14.5
BOD ₅ mg/l	2.1	2.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.4	5.1
BOD ₅ mg/l	0.3	1.3
TOTAL CAPITAL COST (\$)	1,925,000	4,100,000
ANNUAL O&M COST (\$)	70,000	225,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	19137	19137
REMOVED, LBS.	17100.6	11825.8
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	21,500	66,300
TREATMENT COST (¢/1000 gals)	8.8	22.4

STORMWATER MANAGEMENT SUMMARY

NEPONSET RIVER BASIN

TOWN HANSON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1661

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	42.6

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	419
SUSP. SOLIDS, LBS.	5039
BOD ₅	741

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	29.2	29.2
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	398	398
SUSP. SOLIDS, LBS.	4535.1	3275.4
BOD ₅ , LBS.	629.9	296.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	21	21
SUSP. SOLIDS, LBS.	503.9	1763.6
BOD ₅ , LBS.	111.1	444.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	1.2
SUSP. SOLIDS mg/l	14.2	14.2
BOD ₅ mg/l	2.1	2.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.4	5.0
BOD ₅ mg/l	0.3	1.3

TOTAL CAPITAL COST (\$)	800,000	2,175,000
ANNUAL O&M COST (\$)	22,000	70,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	5780	5780
REMOVED, LBS.	5165	3571.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	8,900	35,200
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TREATMENT COST (¢/1000 gals)	11.3	31.3
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STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN	MARSHFIELD	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2108	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	58.2	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	635	
SUSP. SOLIDS, LBS.	7590	
BOD ₅	1116	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	39.9	39.9
% TREATED	68.6	68.6
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	603.2	603.2
SUSP. SOLIDS, LBS.	6831	4933.5
BOD ₅ , LBS.	948.6	446.4
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	31.8	31.8
SUSP. SOLIDS, LBS.	759	2656.5
BOD ₅ , LBS.	167.4	669.6
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.3	1.3
SUSP. SOLIDS mg/l	15.6	15.6
BOD ₅ mg/l	2.3	2.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.6	5.5
BOD ₅ mg/l	0.3	1.4
TOTAL CAPITAL COST (\$)	1,050,000	2,500,000
ANNUAL O&M COST (\$)	30,000	100,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	8706	8706
REMOVED, LBS.	7779.6	5379.9
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	11,800	40,500
TREATMENT COST (¢/1000 gals)	10.4	27.8

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN NORWELL

URBAN DRAINAGE AREA

YEAR	2000
ACRES	2839

TOTAL STORM RUNOFF VOL.

MIL. GAL.	81.6
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	814
SUSP. SOLIDS, LBS.	9714
BOD ₅	1428

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	55.9	55.9
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	773.3	773.3
SUSP. SOLIDS, LBS.	8742.6	6314.1
BOD ₅ , LBS.	1213.8	571.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	40.7	40.7
SUSP. SOLIDS, LBS.	971.4	3399.9
BOD ₅ , LBS.	214.2	856.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	1.2
SUSP. SOLIDS mg/l	14.3	14.3
BOD ₅ mg/l	2.1	2.1
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.4	5.0
BOD ₅ mg/l	0.3	1.3

TOTAL CAPITAL COST (\$)

1,275,000	3,000,000
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ANNUAL O&M COST (\$)

42,000	130,000
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EUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	11142	11142
REMOVED, LBS.	9956.4	6885.3
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

14,300	48,500
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TREATMENT COST (¢/1000 gals)

9.8	25.5
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STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN	PEMBROKE		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	2931		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	84.7		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	792		
SUSP. SOLIDS, LBS.	9440		
BOD ₅	1388		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	58.0	58.0	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	752.4	752.4	
SUSP. SOLIDS, LBS.	8496	6136	
BOD ₅ , LBS.	1179.3	555.2	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	39.6	39.6	
SUSP. SOLIDS, LBS.	944	3304	
BOD ₅ , LBS.	208.2	832.8	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.1	1.1	
SUSP. SOLIDS mg/l	13.4	13.4	
BOD ₅ mg/l	2.0	2.0	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.06	0.06	
SUSP. SOLIDS mg/l	1.3	4.7	
BOD ₅ mg/l	0.3	1.2	
TOTAL CAPITAL COST (\$)	1,300,000	3,100,000	
ANNUAL O&M COST (\$)	44,000	140,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	10828	10828	
REMOVED, LBS.	9675.8	6691.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	14,500	50,200	
TREATMENT COST (¢/1000 gals)	9.7	25.2	

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN	ROCKLAND	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	2076	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	66.5	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	1044	
SUSP. SOLIDS, LBS.	12439	
BOD ₅	1830	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	45.5	45.5
% TREATED	68.4	68.4
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	991.8	991.8
SUSP. SOLIDS, LBS.	11195.1	8085.3
BOD ₅ , LBS.	1555.5	732
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	52.2	52.2
SUSP. SOLIDS, LBS.	1243.9	4353.7
BOD ₅ , LBS.	274.5	1098
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.9	1.9
SUSP. SOLIDS mg/l	22.4	22.4
BOD ₅ mg/l	3.3	3.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.2	7.8
BOD ₅ mg/l	0.5	2.0
TOTAL CAPITAL COST (\$)	1,100,000	2,650,000
ANNUAL O&M COST (\$)	33,000	105,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	14269	14269
REMOVED, LBS.	12750.6	8817.3
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	12,300	42,900
TREATMENT COST (¢/1000 gals)	10.2	26.9

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN	SCITUATE		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	721		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	22.2		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	239		
SUSP. SOLIDS, LBS.	2844		
BOD ₅	418		
STORMWATER TREATMENT			
TREAT. DESCRIP.		SP	SMD
VOLUME TREAT., MG		15.3	15.3
% TREATED		68.9	68.9
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.		227	227
SUSP. SOLIDS, LBS.		2559.6	1848.6
BOD ₅ , LBS.		355.3	167.2
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.		12.0	12.0
SUSP. SOLIDS, LBS.		284.4	995.4
BOD ₅ , LBS.		62.7	250.8
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l		1.3	1.3
SUSP. SOLIDS mg/l		15.4	15.4
BOD ₅ mg/l		2.3	2.3
AFTER TREATMENT			
SETT. SOLIDS mg/l		0.06	0.06
SUSP. SOLIDS mg/l		1.5	5.4
BOD ₅ mg/l		0.3	1.4
TOTAL CAPITAL COST (\$)	500,000	1,500,000	
ANNUAL O&M COST (\$)	10,000	35,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	3262	3262	
REMOVED, LBS.	2914.9	2015.8	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	5,600	24,300	
TREATMENT COST (¢/1000 gals)	13.1	38.7	

STORMWATER MANAGEMENT SUMMARY

NORTH RIVER BASIN

TOWN WEYMOUTH

URBAN DRAINAGE AREA

YEAR	2000
ACRES	169

TOTAL STORM RUNOFF VOL.

MIL. GAL.	4.2
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	36
SUSP. SOLIDS, LBS.	367
BOD ₅	54

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP
VOLUME TREAT., MG	-	2.8
% TREATED	-	66.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	34.2
SUSP. SOLIDS, LBS.	-	330.3
BOD ₅ , LBS.	-	45.9

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	36	1.8
SUSP. SOLIDS, LBS.	367	36.7
BOD ₅ , LBS.	54	8.1

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	15.7	15.7
BOD ₅ mg/l	2.3	2.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.5	0.08
SUSP. SOLIDS mg/l	15.7	1.6
BOD ₅ mg/l	2.3	0.3

TOTAL CAPITAL COST (\$)	-	150,000
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ANNUAL O&M COST (\$)	-	3,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	421	421
REMOVED, LBS.	-	376.2
% REMOVED	-	89.4

CAPITAL COSTS/% REMOVAL (\$)	-	1,700
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TREATMENT COST (¢/1000 gals)	-	20.0
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STORMWATER MANAGEMENT SUMMARY

PARKER RIVER BASIN

TOWN	BOXFORD		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	551		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	13.3		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	84		
SUSP. SOLIDS, LBS.	1015		
BOD ₅	149		
STORMWATER TREATMENT			
TREAT. DESCRIP.	NT	SP	
VOLUME TREAT., MG	-	9.1	
% TREATED	-	68.4	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	-	79.8	
SUSP. SOLIDS, LBS.	-	913.5	
BOD ₅ , LBS.	-	126.7	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	84	4.2	
SUSP. SOLIDS, LBS.	1015	101.5	
BOD ₅ , LBS.	149	22.3	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	0.8	0.8	
SUSP. SOLIDS mg/l	9.2	9.2	
BOD ₅ mg/l	1.3	1.3	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.8	0.04	
SUSP. SOLIDS mg/l	9.2	0.9	
BOD ₅ mg/l	1.3	0.2	
TOTAL CAPITAL COST (\$)	-	325,000	
ANNUAL O&M COST (\$)	-	7,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	1164	1164	
REMOVED, LBS.	-	1040.2	
% REMOVED	-	89.4	
CAPITAL COSTS/% REMOVAL (\$)	-	3,600	
TREATMENT COST (¢/1000 gals)	-	14.3	

STORMWATER MANAGEMENT SUMMARY

PARKER RIVER BASIN

TOWN IPSWICH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 127

TOTAL STORM RUNOFF VOL.

MIL. GAL. 3.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 45

SUSP. SOLIDS, LBS. 539

BOD₅ 79

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

VOLUME TREAT., MG

-

2.5

% TREATED

-

67.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

42.8

SUSP. SOLIDS, LBS.

-

485.1

BOD₅, LBS.

-

67.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

45

2.2

SUSP. SOLIDS, LBS.

539

53.9

BOD₅, LBS.

79

11.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.4

1.4

SUSP. SOLIDS mg/l

17.0

17.0

BOD₅ mg/l

2.5

2.5

AFTER TREATMENT

SETT. SOLIDS mg/l

1.4

0.07

SUSP. SOLIDS mg/l

17.0

1.7

BOD₅ mg/l

2.5

0.4

TOTAL CAPITAL COST (\$)

-

150,000

ANNUAL O&M COST (\$)

-

3,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

618

618

REMOVED, LBS.

-

552.3

% REMOVED

-

89.4

CAPITAL COSTS/% REMOVAL (\$)

-

1,700

TREATMENT COST (¢/1000 gals)

-

20.0

STORMWATER MANAGEMENT SUMMARY

ROWLEY RIVER BASIN

TOWN	IPSWICH	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	1649	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	58.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	555	
SUSP. SOLIDS, LBS.	11412	
BOD ₅	1680	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	39.9	39.9
% TREATED	68.7	68.7
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	907.2	907.2
SUSP. SOLIDS, LBS.	10270.8	7417.8
BOD ₅ , LBS.	1428	672
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	47.8	47.8
SUSP. SOLIDS, LBS.	1141.2	3994.2
BOD ₅ , LBS.	252	1008
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.0	2.0
SUSP. SOLIDS mg/l	23.6	23.6
BOD ₅ mg/l	3.5	3.5
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.4	8.2
BOD ₅ mg/l	0.5	2.1
TOTAL CAPITAL COST (\$)	1,050,000	2,500,000
ANNUAL O&M COST (\$)	30,000	120,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	13092	13092
REMOVED, LBS.	11,698.8	8,089.8
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	11,800	40,800
TREATMENT COST (¢/1000 gals)	10.4	27.8

STORMWATER MANAGEMENT SUMMARY
SALEM HARBOR

TOWN	LYNN	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	60	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	1.4	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	13	
SUSP. SOLIDS, LBS.	162	
BOD ₅	24	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		13
SUSP. SOLIDS, LBS.		162
BOD ₅ , LBS.		24
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.1
SUSP. SOLIDS mg/l		13.9
BOD ₅ mg/l		2.1
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.1
SUSP. SOLIDS mg/l		13.9
BOD ₅ mg/l		2.1
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		186
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

SALEM HARBOR

TOWN	MARBLEHEAD		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	582		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	18.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	243		
SUSP. SOLIDS, LBS.	2900		
BOD ₅	426		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	12.3	12.3	
% TREATED	68.3	68.3	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	230.8	230.8	
SUSP. SOLIDS, LBS.	2610	1885	
BOD ₅ , LBS.	362.1	170.4	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	12.2	12.2	
SUSP. SOLIDS, LBS.	290	1015	
BOD ₅ , LBS.	63.9	255.6	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.6	1.6	
SUSP. SOLIDS mg/l	19.3	19.3	
BOD ₅ mg/l	2.8	2.8	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.08	0.08	
SUSP. SOLIDS mg/l	1.9	6.8	
BOD ₅ mg/l	0.4	1.7	
TOTAL CAPITAL COST (\$)	400,000	1,450,000	
ANNUAL O&M COST (\$)	10,000	35,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	3326	3326	
REMOVED, LBS.	2972.1	2055.4	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	4,500	23,500	
TREATMENT COST (¢/1000 gals)	13.7	47.0	

STORMWATER MANAGEMENT SUMMARY

SALEM HARBOR

TOWN · SALEM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	992

TOTAL STORM RUNOFF VOL.

MIL. GAL.	39.9
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	855
SUSP. SOLIDS, LBS.	10121
BOD ₅	1488

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	27.4	27.4
% TREATED	68.7	68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	812.3	812.3
SUSP. SOLIDS, LBS.	9108.9	6578.6
BOD ₅ , LBS.	1264.8	595.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	42.7	42.7
SUSP. SOLIDS, LBS.	1012.1	3542.4
BOD ₅ , LBS.	223.2	892.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	2.6	2.6
SUSP. SOLIDS mg/l	30.4	30.4
BOD ₅ mg/l	4.5	4.5

AFTER TREATMENT

SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	3.0	10.6
BOD ₅ mg/l	0.7	2.7

TOTAL CAPITAL COST (\$)

1,050,000	2,500,000
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ANNUAL O&M COST (\$)

30,000	120,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	11609	11609
REMOVED, LBS.	10373.7	7173.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

11,800	40,500
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TREATMENT COST (¢/1000 gals)

10.4	27.8
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STORMWATER MANAGEMENT SUMMARY

SALEM HARBOR

TOWN	SWAMPSCOTT		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	143		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	5.0		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	65		
SUSP. SOLIDS, LBS.	756		
BOD ₅	111		
STORMWATER TREATMENT			
TREAT. DESCRIP.	NT	SP	
VOLUME TREAT., MG	-	3.5	
% TREATED	-	70	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	-	61.8	
SUSP. SOLIDS, LBS.	-	680.4	
BOD ₅ , LBS.	-	94.4	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	65	3.2	
SUSP. SOLIDS, LBS.	756	75.6	
BOD ₅ , LBS.	111	16.6	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.6	1.6	
SUSP. SOLIDS mg/l	18.1	18.1	
BOD ₅ mg/l	2.7	2.7	
AFTER TREATMENT			
SETT. SOLIDS mg/l	1.6	0.08	
SUSP. SOLIDS mg/l	18.1	1.8	
BOD ₅ mg/l	2.7	0.4	
TOTAL CAPITAL COST (\$)	-	190,000	
ANNUAL O&M COST (\$)	-	4,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	867	867	
REMOVED, LBS.	-	774.8	
% REMOVED	-	89.4	
CAPITAL COSTS/% REMOVAL (\$)	-	2,100	
TREATMENT COST (¢/1000 gals)	-	20.4	

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN	LYNN			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	1305			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	47.3			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	946			
SUSP. SOLIDS, LBS.	11211			
BOD ₅	1648			
STORMWATER TREATMENT				
TREAT. DESCRIP.		SP	SMD	MD
VOLUME TREAT., MG		32.5	32.5	32.5
% TREATED		68.7	68.7	68.7
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.		898.7	898.7	851.4
SUSP. SOLIDS, LBS.		10089.9	7287.2	5045
BOD ₅ , LBS.		1400.8	659.2	329.6
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.		47.3	47.3	94.6
SUSP. SOLIDS, LBS.		1121.1	3923.8	6166
BOD ₅ , LBS.		247.2	988.8	1318.4
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l		2.4	2.4	2.4
SUSP. SOLIDS mg/l		28.4	28.4	28.4
BOD ₅ mg/l		4.2	4.2	4.2
AFTER TREATMENT				
SETT. SOLIDS mg/l		0.1	0.1	0.2
SUSP. SOLIDS mg/l		2.8	9.9	15.6
BOD ₅ mg/l		0.6	2.5	3.3
TOTAL CAPITAL COST (\$)		875,000	2,250,000	4,600,000
ANNUAL O&M COST (\$)		24,000	80,000	230,000
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.		12859	12859	12859
REMOVED, LBS.		11490.7	7946.4	5374.6
% REMOVED		89.4	61.8	41.8
CAPITAL COSTS/% REMOVAL (\$)		9,800	36,400	110,000
TREATMENT COST (¢/1000 gals)		11.0	29.5	75.9

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METCALF AND EDDY INC BOSTON MASS
WASTEWATER ENGINEERING AND MANAGEMENT PLAN FOR BOSTON HARBOR - --ETC(U)
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STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN LYNNFIELD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2605

TOTAL STORM RUNOFF VOL.

MIL. GAL. 74.4

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 665

SUSP. SOLIDS, LBS. 7922

BOD₅ 1165

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

51.1

51.1

% TREATED

68.7

68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

631.8

631.8

SUSP. SOLIDS, LBS.

7129.8

5149.3

BOD₅, LBS.

990.2

466

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

33.2

33.2

SUSP. SOLIDS, LBS.

792.2

2772.7

BOD₅, LBS.

174.8

699

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.1

1.1

SUSP. SOLIDS mg/l

12.8

12.8

BOD₅ mg/l

1.9

1.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.05

0.05

SUSP. SOLIDS mg/l

1.3

4.5

BOD₅ mg/l

0.3

1.1

TOTAL CAPITAL COST (\$)

1,225,000 2,800,000

ANNUAL O&M COST (\$)

38,000 115,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

9087

9087

REMOVED, LBS.

8120

5615.3

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

13,700

45,300

TREATMENT COST (¢/1000 gals)

9.8

26.0

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN MALDEN

URBAN DRAINAGE AREA

YEAR	2000
ACRES	877

TOTAL STORM RUNOFF VOL.

MIL. GAL.	29.7
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	551
SUSP. SOLIDS, LBS.	6544
BOD ₅	962

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP	SMD	MD
20.4	20.4	20.4
68.7	68.7	68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

523.5 523.5 495.9

SUSP. SOLIDS, LBS.

5889.6 4253.6 2944.8

BOD₅, LBS.

817.7 384.8 192.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

27.5 27.5 55.1

SUSP. SOLIDS, LBS.

654.4 2290.4 3599.2

BOD₅, LBS.

144.3 577.2 769.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.2 2.2 2.2

SUSP. SOLIDS mg/l

26.4 26.4 26.4

BOD₅ mg/l

3.9 3.9 3.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1 0.1 0.2

SUSP. SOLIDS mg/l

2.6 9.2 14.5

BOD₅ mg/l

0.6 2.3 3.1

TOTAL CAPITAL COST (\$)

635,000 1,850,000 3,000,000

ANNUAL O&M COST (\$)

16,000 55,000 150,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

7506 7056 7506

REMOVED, LBS.

6707.3 4638.4 3137.2

% REMOVED

89.4 61.8 41.8

CAPITAL COSTS/% REMOVAL (\$)

7,100 29,900 72,000

TREATMENT COST (¢/1000 gals)

14.8 38.2 78.6

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN MELROSE

URBAN DRAINAGE AREA

YEAR	2000
ACRES	593

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	19.4

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	348
SUSP. SOLIDS, LBS.	4160
BOD ₅	611

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP	SMD	MD
13.3	13.3	13.3
68.6	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

SUSP. SOLIDS, LBS.

BOD₅, LBS.

330.6	330.6	313.2
3744	2704	1872
519.4	244.4	122.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

SUSP. SOLIDS, LBS.

BOD₅, LBS.

17.4	17.4	34.8
416	1456	2288
91.6	366.6	488.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

SUSP. SOLIDS mg/l

BOD₅ mg/l

2.2	2.2	2.2
25.7	25.7	25.7
3.8	3.8	3.8

AFTER TREATMENT

SETT. SOLIDS mg/l

SUSP. SOLIDS mg/l

BOD₅ mg/l

0.1	0.1	0.2
2.6	9.0	14.1
0.6	2.3	3.0

TOTAL CAPITAL COST (\$)

450,000 1,475,000 2,000,000

ANNUAL O&M COST (\$)

10,000 35,000 100,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

REMOVED, LBS.

% REMOVED

4771	4771	4771
4263.4	2948.4	1994.2
89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

5,000 23,900 47,900

TREATMENT COST (¢/1000 gals)

13.5 43.0 83.0

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN	READING		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	1581		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	51.5		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	736		
SUSP. SOLIDS, LBS.	8760		
BOD ₅	1288		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	35.3	35.3	
% TREATED	68.5	68.5	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	699.2	699.2	
SUSP. SOLIDS, LBS.	7884	5694	
BOD ₅ , LBS.	1094.8	515.2	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	36.8	36.8	
SUSP. SOLIDS, LBS.	876	3066	
BOD ₅ , LBS.	193.2	772.8	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.7	1.7	
SUSP. SOLIDS mg/l	20.4	20.4	
BOD ₅ mg/l	3.0	3.0	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.09	0.09	
SUSP. SOLIDS mg/l	2.0	7.1	
BOD ₅ mg/l	0.4	1.8	
TOTAL CAPITAL COST (\$)	925,000	2,350,000	
ANNUAL O&M COST (\$)	26,000	85,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	10,048	10,048	
REMOVED, LBS.	8978.8	6209.2	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	10,300	38,000	
TREATMENT COST (\$/1000 gals)	10.8	29.0	

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN	REVERE			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	1538			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	52.8			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	1005			
SUSP. SOLIDS, LBS.	11953			
BOD ₅	1757			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	36.3	36.3	36.3	
% TREATED	68.8	68.8	68.8	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	954.8	954.8	904.5	
SUSP. SOLIDS, LBS.	10757.7	7769.5	5378.9	
BOD ₅ , LBS.	1493.5	702.8	351.4	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	50.2	50.2	100.5	
SUSP. SOLIDS, LBS.	1195.3	4183.5	6574.1	
BOD ₅ , LBS.	263.5	1054.2	1405.6	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.3	2.3	2.3	
SUSP. SOLIDS mg/l	27.1	27.1	27.1	
BOD ₅ mg/l	4.0	4.0	4.0	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	2.7	9.5	14.9	
BOD ₅ mg/l	0.6	2.4	3.2	
TOTAL CAPITAL COST (\$)	925,000	2,350,000	5,500,000	
ANNUAL O&M COST (\$)	26,000	85,000	275,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	13710	13710	13710	
REMOVED, LBS.	12251.2	8472.3	5730.3	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	10,300	38,000	132,000	
TREATMENT COST (¢/1000 gals)	10.8	33.9	76.4	

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN SAUGUS

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3064

TOTAL STORM RUNOFF VOL.

MIL. GAL. 103.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 2155

SUSP. SOLIDS, LBS. 25657

BOD₅ 3773

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP

SMD

MD

71.1

71.1

71.1

68.5

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

2047.3

2047.3

1939.5

SUSP. SOLIDS, LBS.

23091.3

16677

11545.6

BOD₅, LBS.

3207

1509.2

754.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

107.7

107.7

215.5

SUSP. SOLIDS, LBS.

2565.7

8980

14111.4

BOD₅, LBS.

566

2263.8

3018.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

4.8

4.8

4.8

SUSP. SOLIDS mg/l

29.6

29.6

29.6

BOD₅ mg/l

4.4

4.4

4.4

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

3.0

10.4

16.3

BOD₅ mg/l

0.7

2.6

3.5

TOTAL CAPITAL COST (\$)

1,500,000 3,400,000 10,500,000

ANNUAL O&M COST (\$)

52,000 165,000 525,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

29,430

29,430

29,430

REMOVED, LBS.

26298.3

18186.2

12,300.2

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

16,800

55,000

251,000

/ TREATMENT COST (¢/1000 gals)

9.2

24.0

74.3

STORMWATER MANAGEMENT SUMMARY

SAUGUS RIVER BASIN

TOWN WAKEFIELD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1806

TOTAL STORM RUNOFF VOL.

MIL. GAL. 54.2

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 903

SUSP. SOLIDS, LBS. 10770

BOD₅ 1583

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

MD

VOLUME TREAT., MG

37.1

37.1

37.1

% TREATED

68.5

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

857.9

857.9

812.7

SUSP. SOLIDS, LBS.

9693

7000.5

4846.5

BOD₅, LBS.

1345.5

633.2

316.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

45.1

45.1

90.3

SUSP. SOLIDS, LBS.

1077

3769.5

5923.5

BOD₅, LBS.

237.5

949.8

1266.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.0

2.0

2.0

SUSP. SOLIDS mg/l

23.8

23.8

23.8

BOD₅ mg/l

3.5

3.5

3.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

0.2

SUSP. SOLIDS mg/l

2.4

9.3

13.1

BOD₅ mg/l

0.5

2.1

2.8

TOTAL CAPITAL COST (\$)

950,000 2,450,000 5,500,000

ANNUAL O&M COST (\$)

28,000 90,000 275,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

12353

12353

12353

REMOVED, LBS.

11038.5

7633.7

5163.1

% REMOVED

89.4

61.8

41.8

CAPITAL COSTS/% REMOVAL (\$)

10,600

39,600

132,000

TREATMENT COST (¢/1000 gals)

10.7

28.5

76.3

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN ANDOVER

URBAN DRAINAGE AREA

YEAR 2000

ACRES 7291

TOTAL STORM RUNOFF VOL.

MIL. GAL. 195.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 2003

SUSP. SOLIDS, LBS. 23924

BOD₅ 3516

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP SMD

133.8 133.8

68.6 68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 1902.8 1902.8

SUSP. SOLIDS, LBS. 21531.6 15550.6

BOD₅, LBS. 2988.6 1406.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 100.2 100.2

SUSP. SOLIDS, LBS. 2392.4 8373.4

BOD₅, LBS. 527.4 2109.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.2 1.2

SUSP. SOLIDS mg/l 14.7 14.7

BOD₅ mg/l 2.2 2.2

AFTER TREATMENT

SETT. SOLIDS mg/l 0.06 0.06

SUSP. SOLIDS mg/l 1.5 5.1

BOD₅ mg/l 0.3 1.3

TOTAL CAPITAL COST (\$)

2,600,000 5,100,000

ANNUAL O&M COST (\$)

100,000 320,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

27440 27440

REMOVED, LBS.

24520.2 16957

% REMOVED

89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

29,100 82,500

TREATMENT COST (¢/1000 gals)

8.4 20.8

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN BEDFORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 4710

TOTAL STORM RUNOFF VOL.

MIL. GAL. 178.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 3643

SUSP. SOLIDS, LBS. 43359

BOD₅ 6380

STORMWATER TREATMENT

TREAT. DESCRIP. SP SMD

VOLUME TREAT., MG 122 122

% TREATED 68.5 68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. 3460.8 3460.8

SUSP. SOLIDS, LBS. 39023.1 28183.4

BOD₅, LBS. 5423 2552

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 182.2 182.2

SUSP. SOLIDS, LBS. 4335.9 15175.6

BOD₅, LBS. 957 3828

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 2.5 2.5

SUSP. SOLIDS mg/l 29.2 29.2

BOD₅ mg/l 4.3 4.3

AFTER TREATMENT

SETT. SOLIDS mg/l 0.1 0.1

SUSP. SOLIDS mg/l 2.9 10.2

BOD₅ mg/l 0.6 2.6

TOTAL CAPITAL COST (\$) 2,325,000 4,750,000

ANNUAL O&M COST (\$) 89,000 280,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 49739 49739

REMOVED, LBS. 44446.1 30735.4

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$) 26,000 76,900

TREATMENT COST (¢/1000 gals) 8.5 21.2

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN	BILLERICA		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	3096		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	90.1		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	1142		
SUSP. SOLIDS, LBS.	13570		
BOD ₅	1995		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	61.0	61.0	
% TREATED	67.7	67.7	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	1084.9	1084.9	
SUSP. SOLIDS, LBS.	12213	8820.5	
BOD ₅ , LBS.	1695.8	798	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	57.1	57.1	
SUSP. SOLIDS, LBS.	1357	4749.5	
BOD ₅ , LBS.	299.2	1197	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.5	1.5	
SUSP. SOLIDS mg/l	18.1	18.1	
BOD ₅ mg/l	2.7	2.7	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.08	0.08	
SUSP. SOLIDS mg/l	1.8	6.3	
BOD ₅ mg/l	0.4	1.6	
TOTAL CAPITAL COST (\$)	1,350,000	3,100,000	
ANNUAL O&M COST (\$)	44,000	140,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	15565	15565	
REMOVED, LBS.	13908.8	9618.5	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	15,100	50,200	
TREATMENT COST (¢/1000 gals)	9.6	24.9	

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN BURLINGTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 4000

TOTAL STORM RUNOFF VOL.

MIL. GAL. 144.9

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 2405

SUSP. SOLIDS, LBS. 28485

BOD₅ 4189

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

99.3

99.3

% TREATED

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

2284.7

2284.7

SUSP. SOLIDS, LBS.

25636.5

18515.2

BOD₅, LBS.

3560.6

1675.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

120.3

120.3

SUSP. SOLIDS, LBS.

2848.5

9969.8

BOD₅, LBS.

628.4

2513.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.0

2.0

SUSP. SOLIDS mg/l

23.6

23.6

BOD₅ mg/l

3.5

3.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.4

8.2

BOD₅ mg/l

0.5

2.1

TOTAL CAPITAL COST (\$)

2,000,000

4,200,000

ANNUAL O&M COST (\$)

73,000

235,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

32674

32674

REMOVED, LBS.

29197.1

20190.8

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

22,400

68,000

TREATMENT COST (¢/1000 gals)

8.8

23.2

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN CONCORD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	343

TOTAL STORM RUNOFF VOL.

MIL. GAL.	16.2
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	193
SUSP. SOLIDS, LBS.	2217
BOD ₅	326

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	11.1	11.1
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	183.4	183.4
SUSP. SOLIDS, LBS.	1995.3	1441
BOD ₅ , LBS.	277.1	130.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	9.6	9.6
SUSP. SOLIDS, LBS.	221.7	776
BOD ₅ , LBS.	48.9	195.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.4	1.4
SUSP. SOLIDS mg/l	16.4	16.4
BOD ₅ mg/l	2.4	2.4
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.6	5.7
BOD ₅ mg/l	0.4	1.5

TOTAL CAPITAL COST (\$)

375,000	1,350,000
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ANNUAL O&M COST (\$)

9,000	30,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	2543	2543
REMOVED, LBS.	2272.4	1571.4
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

4,200	21,800
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TREATMENT COST (¢/1000 gals)

14.0	50.0
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STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN LEXINGTON

URBAN DRAINAGE AREA

YEAR	2000
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ACRES 3235

TOTAL STORM RUNOFF VOL.

MIL. GAL. 91.9

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1132

SUSP. SOLIDS, LBS. 13505

BOD₅ 1986

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
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VOLUME TREAT., MG	63.0	63.0
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% TREATED	68.6	68.6
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POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1075.4	1075.4
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SUSP. SOLIDS, LBS.	12154.5	8778.2
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BOD ₅ , LBS.	1688.1	794.4
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POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	56.6	56.6
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SUSP. SOLIDS, LBS.	1350.5	4726.8
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BOD ₅ , LBS.	297.9	1191.6
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AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.5	1.5
-------------------	-----	-----

SUSP. SOLIDS mg/l	17.6	17.6
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BOD ₅ mg/l	2.6	2.6
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AFTER TREATMENT

SETT. SOLIDS mg/l	0.07	0.07
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SUSP. SOLIDS mg/l	1.8	6.2
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BOD ₅ mg/l	0.4	1.6
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TOTAL CAPITAL COST (\$)

1,400,000 3,200,000

ANNUAL O&M COST (\$)

47,000 150,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	15491	15491
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BEFORE TREATMENT, LBS.	13842.6	9572.6
REMOVED, LBS.		

REMOVED, 1994	89.4	61.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

15,700 51,800

TREATMENT COST (\$/1000 gals)

9.5 24.7

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN LINCOLN

URBAN DRAINAGE AREA

YEAR	2000
ACRES	740

TOTAL STORM RUNOFF VOL.

MIL. GAL.	28.0
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	260
SUSP. SOLIDS, LBS.	3058
BOD ₅	449

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	19.2	19.2
% TREATED	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	247	247
SUSP. SOLIDS, LBS.	2752.2	1987.7
BOD ₅ , LBS.	381.6	179.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	13	13
SUSP. SOLIDS, LBS.	305.8	1070.3
BOD ₅ , LBS.	67.4	269.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.1	1.1
SUSP. SOLIDS mg/l	13.1	13.1
BOD ₅ mg/l	1.9	1.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.3	4.6
BOD ₅ mg/l	0.3	1.2

TOTAL CAPITAL COST (\$)

625,000	1,800,000
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ANNUAL O&M COST (\$)

15,000	50,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	3507	3507
REMOVED, LBS.	3133.8	2167.3
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

7,000	29,100
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TREATMENT COST (¢/1000 gals)

12.5	38.0
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STORMWATER MANAGEMENT SUMMARY

SHAWSHOEN RIVER BASIN

TOWN	NORTH ANDOVER	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	907	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	24.7	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	264	
SUSP. SOLIDS, LBS.	3160	
BOD ₅	464	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	16.9	16.9
% TREATED	68.4	68.4
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	250.8	250.8
SUSP. SOLIDS, LBS.	2844	2054
BOD ₅ , LBS.	394.4	185.6
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	13.2	13.2
SUSP. SOLIDS, LBS.	316	1106
BOD ₅ , LBS.	69.6	278.4
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.3	1.3
SUSP. SOLIDS mg/l	15.3	15.3
BOD ₅ mg/l	2.3	2.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.5	5.4
BOD ₅ mg/l	0.3	1.4
TOTAL CAPITAL COST (\$)	550,000	1,650,000
ANNUAL O&M COST (\$)	13,000	40,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	3624	3624
REMOVED, LBS.	3238.4	2239.6
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	6,200	26,700
TREATMENT COST (¢/1000 gals)	12.8	38.9

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN TEWKSBURY

URBAN DRAINAGE AREA

YEAR	1995	2000
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PER	2000
ACRES	3854

TOTAL STORM RUNOFF VOL.

MIL. GAL. 119.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1677

SUSP. SOLIDS, LBS.	19946
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BOD ₅	2933
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STORMWATER TREATMENT

TREAT. DESCRIP.

SP SMD

VOLUME TREAT., MG

81.6	81.6
------	------

3 TREATED

68.5 68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1593.2	1593.2
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SUSP. SOLIDS, LBS.	17951.4	12964.9
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BOD ₅ , LBS.	2493	1173.2
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POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	83.8	83.8
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SUSP. SOLIDS, LBS.	1994.6	6981.1
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BOD ₅ , LBS.	440	1759.8
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AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.7	1.7
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SUSP. SOLIDS mg/l	20.1	20.1
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BOD ₅ mg/l	3.0	3.0
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AFTER TREATMENT

SETT. SOLIDS mg/l	0.08	0.08
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SUSP. SOLIDS mg/l	2.0	7.0
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BOD ₅ mg/l	0.4	1.8
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TOTAL CAPITAL COST (\$)	1,725,000	3,750,000
-------------------------	-----------	-----------

ANNUAL O&M COST (\$)	61,000	195,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	22875	22875
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REMOVED, LBS.	20444.4	14138.2
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REMOVED	89.4	61.8
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CAPITAL COSTS/% REMOVAL (\$)	19,300	60,700
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TREATMENT COST (\$/1000 gals)	9.0	23.2
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STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN WILMINGTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 421

TOTAL STORM RUNOFF VOL.

MIL. GAL. 14.3

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 262

SUSP. SOLIDS, LBS. 3129

BOD₅ 460

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

9.9

9.9

% TREATED

69.2

69.2

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

248.9

248.9

SUSP. SOLIDS, LBS.

2816.1

2033.8

BOD₅, LBS.

391

184

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

13.1

13.1

SUSP. SOLIDS, LBS.

312.9

1095.2

BOD₅, LBS.

69

276

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

2.2

2.2

SETT. SOLIDS mg/l

2.2

2.2

SUSP. SOLIDS mg/l

26.2

26.2

BOD₅ mg/l

3.9

3.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.6

9.2

BOD₅ mg/l

0.6

2.3

TOTAL CAPITAL COST (\$)

350,000 1,300,000

ANNUAL O&M COST (\$)

8,000 25,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

3589

3589

REMOVED, LBS.

3207.1

2217.8

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

3,900

21,000

TREATMENT COST (¢/1000 gals)

14.3

49.7

STORMWATER MANAGEMENT SUMMARY

SHAWSHEEN RIVER BASIN

TOWN WOBURN

URBAN DRAINAGE AREA

YEAR	2000
ACRES	34

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	0.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	8
SUSP. SOLIDS, LBS.	92
BOD ₅	14

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	8
SUSP. SOLIDS, LBS.	92
BOD ₅ , LBS.	14

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	1.2
SUSP. SOLIDS mg/l	13.8
BOD ₅ mg/l	2.1
AFTER TREATMENT	
SETT. SOLIDS mg/l	1.2
SUSP. SOLIDS mg/l	13.8
BOD ₅ mg/l	2.1

TOTAL CAPITAL COST (\$)

ANNUAL O&M COST (\$)

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	106
REMOVED, LBS.	-
% REMOVED	-

CAPITAL COSTS/% REMOVAL (\$)

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

SOUTH RIVER BASIN

TOWN DUXBURY

URBAN DRAINAGE AREA

YEAR 2000

ACRES 452

TOTAL STORM RUNOFF VOL.

MIL. GAL. 13.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 149

SUSP. SOLIDS, LBS. 1772

BOD₅ 261

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

9.0

9.0

% TREATED

68.7

68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

141.5

141.5

SUSP. SOLIDS, LBS.

1594.8

1151.8

BOD₅, LBS.

221.8

104.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

7.5

7.5

SUSP. SOLIDS, LBS.

177.2

620.2

BOD₅, LBS.

39.2

156.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.4

1.4

SUSP. SOLIDS mg/l

16.2

16.2

BOD₅ mg/l

2.4

2.4

AFTER TREATMENT

SETT. SOLIDS mg/l

0.07

0.07

SUSP. SOLIDS mg/l

1.6

5.7

BOD₅ mg/l

0.4

1.4

TOTAL CAPITAL COST (\$)

325,000

1,250,000

ANNUAL O&M COST (\$)

7,000

20,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

2033

2033

REMOVED, LBS.

1816.6

1256.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

3,600

20,000

TREATMENT COST (¢/1000 gals)

14.3

50.8

STORMWATER MANAGEMENT SUMMARY

SOUTH RIVER BASIN

TOWN MARSHFIELD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3125
TOTAL STORM RUNOFF VOL.	
MIL. GAL.	85.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	919
SUSP. SOLIDS, LBS.	10984
BOD ₅	1615

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	58.6	SMD
% TREATED	68.5	SMD

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	873	873
SUSP. SOLIDS, LBS.	9885.6	7139.6
BOD ₅ , LBS.	1372.7	646

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	46	46
SUSP. SOLIDS, LBS.	1098.4	3844.4
BOD ₅ , LBS.	242.2	969

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.3	1.3
SUSP. SOLIDS mg/l	15.4	15.4
BOD ₅ mg/l	2.3	2.3

AFTER TREATMENT

SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.5	5.4
BOD ₅ mg/l	0.3	1.4

TOTAL CAPITAL COST (\$)

1,300,000 3,000,000

ANNUAL O&M COST (\$)

43,000 140,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 12,599 12,599

REMOVED, LBS. 11,258.3 7,785.6

% REMOVED 89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

14,500 48,500

TREATMENT COST (¢/1000 gals)

9.7 25.1

STORMWATER MANAGEMENT SUMMARY

SOUTH RIVER BASIN

TOWN	SCITUATE		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	157		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	4.5		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	42		
SUSP. SOLIDS, LBS.	501		
BOD ₅	74		
STORMWATER TREATMENT			
TREAT. DESCRIP.	NT	SP	
VOLUME TREAT., MG	-	3.1	
% TREATED	-	68.9	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	-	39.9	
SUSP. SOLIDS, LBS.	-	450.9	
BOD ₅ , LBS.	-	62.9	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	42	2.1	
SUSP. SOLIDS, LBS.	501	50.1	
BOD ₅ , LBS.	74	11.1	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.1	1.1	
SUSP. SOLIDS mg/l	13.3	13.3	
BOD ₅ mg/l	2.0	2.0	
AFTER TREATMENT			
SETT. SOLIDS mg/l	1.1	0.06	
SUSP. SOLIDS mg/l	13.3	1.3	
BOD ₅ mg/l	2.0	0.3	
TOTAL CAPITAL COST (\$)	-	150,000	
ANNUAL O&M COST (\$)	-	3,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	575	575	
REMOVED, LBS.	-	513.8	
% REMOVED	-	89.4	
CAPITAL COSTS/% REMOVAL (\$)	-	1,700	
TREATMENT COST (¢/1000 gals)	-	20.0	

STORMWATER MANAGEMENT SUMMARY

STONY BROOK BASIN

TOWN BOXBOROUGH

URBAN DRAINAGE AREA

YEAR	2000
ACRES	512

TOTAL STORM RUNOFF VOL.

MIL. GAL.	12.4
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	166
SUSP. SOLIDS, LBS.	1986
BOD ₅	292

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	\$MD
VOLUME TREAT., MG	8.5	8.5
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	157.7	157.7
SUSP. SOLIDS, LBS.	1787.4	1290.9
BOD ₅ , LBS.	248.2	116.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	8.3	8.3
SUSP. SOLIDS, LBS.	198.6	695.1
BOD ₅ , LBS.	43.8	175.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.6	1.6
SUSP. SOLIDS mg/l	19.2	19.2
BOD ₅ mg/l	2.8	2.8

AFTER TREATMENT

SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	1.9	6.7
BOD ₅ mg/l	0.4	1.7

TOTAL CAPITAL COST (\$)

300,000	1,225,000
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ANNUAL O&M COST (\$)

6,000	20,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

2278	2278
------	------

REMOVED, LBS.

2035.6	1407.7
--------	--------

% REMOVED

89.4	61.8
------	------

CAPITAL COSTS/% REMOVAL (\$)

3,400	19,800
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TREATMENT COST (¢/1000 gals)

14.3	52.9
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STORMWATER MANAGEMENT SUMMARY

STONY BROOK BASIN

TOWN CHELMSFORD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1633
TOTAL STORM RUNOFF VOL.	
MIL. GAL.	46.5

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	576
SUSP. SOLIDS, LBS.	6871
BOD ₅	1010

STORMWATER TREATMENT

TREAT. DESCIP.	SP	SMD	MD
VOLUME TREAT., MG	31.9	31.9	31.9
% TREATED	68.6	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	547.2	547.2	518.4
SUSP. SOLIDS, LBS.	6183.9	4466.2	3092
BOD ₅ , LBS.	858.5	404	202

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	28.8	28.8	57.6
SUSP. SOLIDS, LBS.	687.1	2404.8	3779
BOD ₅ , LBS.	151.5	606	808

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.5	1.5	1.5
SUSP. SOLIDS mg/l	17.7	17.7	17.7
BOD ₅ mg/l	2.6	2.6	2.6
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.07	0.07	0.1
SUSP. SOLIDS mg/l	1.8	6.2	9.7
BOD ₅ mg/l	0.4	1.6	2.1

TOTAL CAPITAL COST (\$)

850,000 2,250,000 4,700,000

ANNUAL O&M COST (\$)

23,000 80,000 230,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	7881	7881	7881
REMOVED, LBS.	7042.4	4870.2	3294
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

9,500 36,400 112,000

TREATMENT COST (¢/1000 gals)

11.0 30.0 76.9

STORMWATER MANAGEMENT SUMMARY

STONY BROOK BASIN

TOWN HARVARD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 126

TOTAL STORM RUNOFF VOL.
MIL. GAL. 2.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 22

SUSP. SOLIDS, LBS. 264

BOD₅ 39

STORMWATER TREATMENT

TREAT. DESCRIP. NT

VOLUME TREAT., MG -

% TREATED -

POLLUTANT REMOVALS

SETT. SOLIDS, LBS. -

SUSP. SOLIDS, LBS. -

BOD₅, LBS. -

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS. 22

SUSP. SOLIDS, LBS. 264

BOD₅, LBS. 39

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l 1.0

SUSP. SOLIDS mg/l 11.7

BOD₅ mg/l 1.7

AFTER TREATMENT

SETT. SOLIDS mg/l 1.0

SUSP. SOLIDS mg/l 11.7

BOD₅ mg/l 1.7

TOTAL CAPITAL COST (\$)

ANNUAL O&M COST (\$)

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS. 303

REMOVED, LBS. -

% REMOVED -

CAPITAL COSTS/% REMOVAL (\$)

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

STONY BROOK BASIN

TOWN LITTLETON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1723

TOTAL STORM RUNOFF VOL.

MIL. GAL.	49.8
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	500
SUSP. SOLIDS, LBS.	5948
BOD ₅	874

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	34.1	34.1
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	475	475
SUSP. SOLIDS, LBS.	5353.2	3866.2
BOD ₅ , LBS.	742.9	349.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	25	25
SUSP. SOLIDS, LBS.	594.8	2081.8
BOD ₅ , LBS.	131.1	524.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	1.2
SUSP. SOLIDS mg/l	14.3	-
BOD ₅ mg/l	2.1	-
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.06	0.06
SUSP. SOLIDS mg/l	1.4	5.0
BOD ₅ mg/l	0.3	1.3

TOTAL CAPITAL COST (\$)

875,000	2,250,000
---------	-----------

ANNUAL O&M COST (\$)

25,000	80,000
--------	--------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	6822	6822
REMOVED, LBS.	6096.1	4215.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

9,800	36,400
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TREATMENT COST (¢/1000 gals)

11.2	30.8
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STORMWATER MANAGEMENT SUMMARY

STONY BROOK BASIN

TOWN WESTFORD

URBAN DRAINAGE AREA

YEAR	2000
ACRES	2898

TOTAL STORM RUNOFF VOL.

MIL. GAL.	96.6
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	1204
SUSP. SOLIDS, LBS.	14202
BOD ₅	2087

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	66.2	66.2
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1143.8	1143.8
SUSP. SOLIDS, LBS.	12781.8	9231.3
BOD ₅ , LBS.	1774	834.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	60.2	60.2
SUSP. SOLIDS, LBS.	1420.2	4970.7
BOD ₅ , LBS.	313	1252.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	17.6	17.6
BOD ₅ mg/l	2.6	2.6
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.8	6.2
BOD ₅ mg/l	0.4	1.6

TOTAL CAPITAL COST (\$)

2,000,000	4,250,000
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ANNUAL O&M COST (\$)

75,000	235,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	16289	16289
REMOVED, LBS.	14555.8	10066.1
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

22,400	68,800
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TREATMENT COST (¢/1000 gals)

8.8	27.2
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STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN ASHLAND

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2183

TOTAL STORM RUNOFF VOL.

MIL. GAL. 77.2

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1211

SUSP. SOLIDS, LBS. 24377

BOD₅ 2114

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

52.9

52.9

% TREATED

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1150.5

1150.5

SUSP. SOLIDS, LBS.

12939.3

9345

BOD₅, LBS.

1796.9

845.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

60.5

60.5

SUSP. SOLIDS, LBS.

1437.7

5032

BOD₅, LBS.

317.1

1268.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.9

1.9

SUSP. SOLIDS mg/l

22.3

22.3

BOD₅ mg/l

3.3

3.3

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

SUSP. SOLIDS mg/l

2.2

7.8

BOD₅ mg/l

0.5

2.0

TOTAL CAPITAL COST (\$)

1,245,000 2,925,000

ANNUAL O&M COST (\$)

39,000 125,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

16491

16491

REMOVED, LBS.

14736.2

10190.6

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

13,900

47,300

TREATMENT COST (¢/1000 gals)

9.7

25.8

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN CONCORD

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1270

TOTAL STORM RUNOFF VOL.

MIL. GAL. 39.0

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 580

SUSP. SOLIDS, LBS. 6940

BOD₅ 1021

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

26.8

26.8

% TREATED

68.7

68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

551

551

SUSP. SOLIDS, LBS.

6246

4511

BOD₅, LBS.

867.8

408.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

29

29

SUSP. SOLIDS, LBS.

694

2429

BOD₅, LBS.

153.2

612.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.8

1.8

SUSP. SOLIDS mg/l

21.3

21.3

BOD₅ mg/l

3.1

3.1

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.1

7.5

BOD₅ mg/l

0.5

1.9

TOTAL CAPITAL COST (\$)

1,050,000 2,500,000

ANNUAL O&M COST (\$)

30,000 120,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

7961

7961

REMOVED, LBS.

7113.8

4919.4

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

11,800

40,500

TREATMENT COST (¢/1000 gals)

10.4

27.8

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN FRAMINGHAM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	9824

TOTAL STORM RUNOFF VOL.

MIL. GAL.	328.1
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	6925
SUSP. SOLIDS, LBS.	82563
BOD ₅	12142

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG	SP	SMD	MD
% TREATED	225.0	225.0	225.0
	68.6	68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	6578.8	6578.8	6232.5
SUSP. SOLIDS, LBS.	74306.7	53666	37153.4
BOD ₅ , LBS.	10320.7	4856.8	2428.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	346.2	346.2	692.5
SUSP. SOLIDS, LBS.	8256.3	28897	45409.6
BOD ₅ , LBS.	1821.3	7285.2	9713.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	2.5	2.5	2.5
SUSP. SOLIDS mg/l	30.2	30.2	30.2
BOD ₅ mg/l	4.4	4.4	4.4

AFTER TREATMENT

SETT. SOLIDS mg/l	0.1	0.1	0.3
SUSP. SOLIDS mg/l	3.0	10.6	16.6
BOD ₅ mg/l	0.7	2.7	3.5

TOTAL CAPITAL COST (\$)

4,100,000	7,100,000	33,000,000
-----------	-----------	------------

ANNUAL O&M COST (\$)

165,000	520,000	1,650,000
---------	---------	-----------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

REMOVED, LBS.

% REMOVED

94705	94705	94705
84627.4	58522.8	39581.8
89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)

45,900	115,000	790,000
--------	---------	---------

TREATMENT COST (¢/1000 gals)

8.2	18.8	72.5
-----	------	------

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN HOPKINTON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2368

TOTAL STORM RUNOFF VOL.

MIL. GAL. 72.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1032

SUSP. SOLIDS, LBS. 12226

BOD₅ 1798

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP

SMD

49.4

49.4

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

980.4

980.4

SUSP. SOLIDS, LBS.

11003.4

7946.9

BOD₅, LBS.

1528.3

719.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

51.6

51.6

SUSP. SOLIDS, LBS.

1222.6

4279.1

BOD₅, LBS.

269.7

1078.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.7

1.7

SUSP. SOLIDS mg/l

20.3

20.3

BOD₅ mg/l

3.0

3.0

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

SUSP. SOLIDS mg/l

2.0

7.1

BOD₅ mg/l

0.4

1.8

TOTAL CAPITAL COST (\$)

1,200,000 2,800,000

ANNUAL O&M COST (\$)

38,000 115,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

14,024

14,024

REMOVED, LBS.

12531.7

8666.1

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

13,400

45,300

TREATMENT COST (¢/1000 gals)

10.0

26.3

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN	HUDSON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	16	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	0.5	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	5	
SUSP. SOLIDS, LBS.	56	
BOD ₅	8	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		5
SUSP. SOLIDS, LBS.		56
BOD ₅ , LBS.		8
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		13.4
BOD ₅ mg/l		1.9
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.2
SUSP. SOLIDS mg/l		13.4
BOD ₅ mg/l		1.9
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		64
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN LINCOLN

URBAN DRAINAGE AREA

YEAR 2000

ACRES 441

TOTAL STORM RUNOFF VOL.

MIL. GAL. 11.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 76

SUSP. SOLIDS, LBS. 917

BOD₅ 135

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

VOLUME TREAT., MG

-

7.6

% TREATED

-

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

72.2

SUSP. SOLIDS, LBS.

-

825.3

BOD₅, LBS.

-

114.7

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

76

3.8

SUSP. SOLIDS, LBS.

917

91.7

BOD₅, LBS.

135

20.3

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

0.8

0.8

SUSP. SOLIDS mg/l

9.9

9.9

BOD₅ mg/l

1.5

1.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.8

0.04

SUSP. SOLIDS mg/l

9.9

1.0

BOD₅ mg/l

1.5

0.2

TOTAL CAPITAL COST (\$)

-

260,000

ANNUAL O&M COST (\$)

-

5,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

1052

1052

REMOVED, LBS.

-

940

% REMOVED

-

89.4

CAPITAL COSTS/% REMOVAL (\$)

-

2,900

TREATMENT COST (¢/1000 gals)

-

15.0

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN MARLBOROUGH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3102

TOTAL STORM RUNOFF VOL.

MIL. GAL. 102.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 2211

SUSP. SOLIDS, LBS. 26388

BOD₅ 3881

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP

SMD

70.5

70.5

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

2100.5

2100.5

SUSP. SOLIDS, LBS.

23749.2

17152.2

BOD₅, LBS.

3298.9

1552.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

110.5

110.5

SUSP. SOLIDS, LBS.

2638.8

9235.8

BOD₅, LBS.

582.1

2328.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.6

2.6

SUSP. SOLIDS mg/l

30.8

30.8

BOD₅ mg/l

4.5

4.5

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

3.1

10.8

BOD₅ mg/l

0.7

2.7

TOTAL CAPITAL COST (\$)

1,525,000 3,450,000

ANNUAL O&M COST (\$)

52,000 165,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

30269

30269

REMOVED, LBS.

27048.1

18704.6

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

17,100

55,800

TREATMENT COST (¢/1000 gals)

9.3

24.0

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN NATICK

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3199

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	108.8

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	1641
SUSP. SOLIDS, LBS.	19489
BOD ₅	2866

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	74.7	74.7
% TREATED	68.7	68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1559	1559
SUSP. SOLIDS, LBS.	17540.1	12667.8
BOD ₅ , LBS.	2436.1	1146.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	82	82
SUSP. SOLIDS, LBS.	1948.9	6821.2
BOD ₅ , LBS.	429.9	1719.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.8	1.8
SUSP. SOLIDS mg/l	21.5	21.5
BOD ₅ mg/l	3.2	3.2
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.2	7.5
BOD ₅ mg/l	0.5	1.9

TOTAL CAPITAL COST (\$)	1,600,000	3,500,000
ANNUAL O&M COST (\$)	55,000	175,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	22355	22355
REMOVED, LBS.	19976.2	13814.2
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	17,900	56,600
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TREATMENT COST (¢/1000 gals)	9.1	23.6
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STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN	NORTHBOROUGH	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	70	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	2.4	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	36	
SUSP. SOLIDS, LBS.		
BOD ₅	64	
STORMWATER TREATMENT		
TREAT. DESCRIP.	NT	
VOLUME TREAT., MG	-	
% TREATED	-	
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	-	
SUSP. SOLIDS, LBS.	-	
BOD ₅ , LBS.	-	
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	36	
SUSP. SOLIDS, LBS.	435	
BOD ₅ , LBS.	64	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.8	
SUSP. SOLIDS mg/l	21.7	
BOD ₅ mg/l	3.2	
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.8	
SUSP. SOLIDS mg/l	21.7	
BOD ₅ mg/l	3.2	
TOTAL CAPITAL COST (\$)	-	
ANNUAL O&M COST (\$)	-	
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	499	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)	-	
TREATMENT COST (¢/1000 gals)	-	

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN SHERBORN

URBAN DRAINAGE AREA

YEAR 2000

ACRES 360

TOTAL STORM RUNOFF VOL.

MIL. GAL. 10.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 82

SUSP. SOLIDS, LBS. 981

BOD₅ 144

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

VOLUME TREAT., MG

-

6.9

% TREATED

-

68.3

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

77.9

SUSP. SOLIDS, LBS.

-

882.9

BOD₅, LBS.

-

122.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

82

4.1

SUSP. SOLIDS, LBS.

981

98.1

BOD₅, LBS.

144

21.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.0

1.0

SUSP. SOLIDS mg/l

11.6

11.6

BOD₅ mg/l

1.7

1.7

AFTER TREATMENT

SETT. SOLIDS mg/l

1.0

0.05

SUSP. SOLIDS mg/l

11.6

1.2

BOD₅ mg/l

1.7

0.3

TOTAL CAPITAL COST (\$)

-

275,000

ANNUAL O&M COST (\$)

-

6,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

1125

1125

REMOVED, LBS.

-

1005.3

% REMOVED

-

89.4

CAPITAL COSTS/% REMOVAL (\$)

-

3,100

TREATMENT COST (¢/1000 gals)

-

15.2

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN SOUTHBOROUGH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2512

TOTAL STORM RUNOFF VOL.

MIL. GAL. 83.2

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1554

SUSP. SOLIDS, LBS. 18531

BOD₅ 2726

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

57.1

57.1

% TREATED

68.6

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1476.3

1476.3

SUSP. SOLIDS, LBS.

16677.9

12045.1

BOD₅, LBS.

2317.1

1090.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

77.7

77.7

SUSP. SOLIDS, LBS.

1853.1

6485.9

BOD₅, LBS.

408.9

1635.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.2

2.2

SUSP. SOLIDS mg/l

26.7

26.7

BOD₅ mg/l

3.9

3.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.7

9.3

BOD₅ mg/l

0.6

2.4

TOTAL CAPITAL COST (\$)

1,200,000 3,050,000

ANNUAL O&M COST (\$)

43,000 135,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

21257

21257

REMOVED, LBS.

18995

13135.5

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

13,400

49,400

TREATMENT COST (¢/1000 gals)

9.8

25.3

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN	SUDBURY		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	6742		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	192.3		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	1779		
SUSP. SOLIDS, LBS.	21253		
BOD ₅	3125		
STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	
VOLUME TREAT., MG	131.9	131.9	
% TREATED	68.6	68.6	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	1690	1690	
SUSP. SOLIDS, LBS.	19127.7	13814.5	
BOD ₅ , LBS.	2656.2	1250	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	89	89	
SUSP. SOLIDS, LBS.	2125.3	7438.5	
BOD ₅ , LBS.	468.8	1875	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	1.1	1.1	
SUSP. SOLIDS mg/l	13.3	13.3	
BOD ₅ mg/l	1.9	1.9	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.06	0.06	
SUSP. SOLIDS mg/l	1.3	4.6	
BOD ₅ mg/l	0.3	1.2	
TOTAL CAPITAL COST (\$)	2,550,000	5,000,000	
ANNUAL O&M COST (\$)	98,000	310,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	24378	24378	
REMOVED, LBS.	21783.9	15064.5	
% REMOVED	89.4	61.8	
CAPITAL COSTS/% REMOVAL (\$)	28,500	80,900	
TREATMENT COST (¢/1000 gals)	8.5	20.8	

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN WAYLAND

URBAN DRAINAGE AREA

YEAR 2000

ACRES 5830

TOTAL STORM RUNOFF VOL.

MIL. GAL. 161.9

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1382

SUSP. SOLIDS, LBS. 16532

BOD₅ 2431

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP

111.0

68.6

SMD

111.0

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1312.9

1312.9

SUSP. SOLIDS, LBS.

14878.8

10745.8

BOD₅, LBS.

2066.4

972.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

69.1

69.1

SUSP. SOLIDS, LBS.

1653.2

5786.2

BOD₅, LBS.

364.6

1458.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.0

1.0

SUSP. SOLIDS mg/l

12.2

12.2

BOD₅ mg/l

1.8

1.8

AFTER TREATMENT

SETT. SOLIDS mg/l

0.05

0.05

SUSP. SOLIDS mg/l

1.2

4.3

BOD₅ mg/l

0.3

1.8

TOTAL CAPITAL COST (\$)

2,200,000

4,500,000

ANNUAL O&M COST (\$)

82,000

265,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

18963

18963

REMOVED, LBS.

16945.2

11718.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

24,600

72,800

TREATMENT COST (¢/1000 gals)

8.7

21.6

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN WESTBOROUGH

URBAN DRAINAGE AREA

YEAR 2000

ACRES 3324

TOTAL STORM RUNOFF VOL.

MIL. GAL. 119.6

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 1950

SUSP. SOLIDS, LBS. 23083

BOD₅ 3394

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

81.9

81.9

% TREATED

68.5

68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

1852.5

1852.5

SUSP. SOLIDS, LBS.

20774.7

15004

BOD₅, LBS.

2884.9

1357.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

97.5

97.5

SUSP. SOLIDS, LBS.

2308.3

8079

BOD₅, LBS.

509.1

2036.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

2.0

2.0

SUSP. SOLIDS mg/l

23.1

23.1

BOD₅ mg/l

3.4

3.4

AFTER TREATMENT

SETT. SOLIDS mg/l

0.1

0.1

SUSP. SOLIDS mg/l

2.3

8.1

BOD₅ mg/l

0.5

2.0

TOTAL CAPITAL COST (\$)

1,740,000 3,750,000

ANNUAL O&M COST (\$)

62,000 195,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

26477

26477

REMOVED, LBS.

23659.6

16361.6

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

19,500

60,700

TREATMENT COST (¢/1000 gals)

9.0

23.2

STORMWATER MANAGEMENT SUMMARY

SUDBURY RIVER BASIN

TOWN WESTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	334

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	8.8

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	80
SUSP. SOLIDS, LBS.	955
BOD ₅	141

STORMWATER TREATMENT

TREAT. DESCRIPT.	NT	SP
VOLUME TREAT., MG	-	6.0
% TREATED	-	68.2

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	76
SUSP. SOLIDS, LBS.	-	859.5
BOD ₅ , LBS.	-	119.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	80	4
SUSP. SOLIDS, LBS.	955	95.5
BOD ₅ , LBS.	141	21.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.1	1.1
SUSP. SOLIDS mg/l	13.0	13.0
BOD ₅ mg/l	1.9	1.9

AFTER TREATMENT

SETT. SOLIDS mg/l	1.1	0.05
SUSP. SOLIDS mg/l	13.0	1.3
BOD ₅ mg/l	1.9	0.3

TOTAL CAPITAL COST (\$)

- 240,000

ANNUAL O&M COST (\$)

- 4,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	1096	1096
REMOVED, LBS.	-	979.3
% REMOVED	-	89.4

CAPITAL COSTS/% REMOVAL (\$)

- 2,700

TREATMENT COST (¢/1000 gals)

- 15.5

STORMWATER MANAGEMENT SUMMARY

TAUNTON RIVER BASIN

TOWN AVON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 2240

TOTAL STORM RUNOFF VOL.

MIL. GAL. 35.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 502

SUSP. SOLIDS, LBS. 5968

BOD₅ 878

STORMWATER TREATMENT

TREAT. DESCRIP.

VOLUME TREAT., MG

% TREATED

SP	SMD
24.5	24.5
68.6	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

476.9 476.9

SUSP. SOLIDS, LBS.

5371.2 3879.2

BOD₅, LBS.

746.3 351.2

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

25.1 25.1

SUSP. SOLIDS, LBS.

596.8 2088.8

BOD₅, LBS.

131.7 526.8

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.7 1.7

SUSP. SOLIDS mg/l

20.0 20.0

BOD₅ mg/l

2.9 2.9

AFTER TREATMENT

SETT. SOLIDS mg/l

0.08 0.08

SUSP. SOLIDS mg/l

2.0 7.0

BOD₅ mg/l

0.4 1.8

TOTAL CAPITAL COST (\$)

700,000 2,000,000

ANNUAL O&M COST (\$)

18,000 60,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

6846 6846

REMOVED, LBS.

6117.5 4230.4

% REMOVED

89.4 61.8

CAPITAL COSTS/% REMOVAL (\$)

7,800 32,400

TREATMENT COST (¢/1000 gals)

11.8 33.5

STORMWATER MANAGEMENT SUMMARY

TAUNTON RIVER BASIN

TOWN HOLBROOK

URBAN DRAINAGE AREA

YEAR	2000
ACRES	234

TOTAL STORM RUNOFF VOL.

MIL. GAL.	7.9
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	102
SUSP. SOLIDS, LBS.	1201
BOD ₅	177

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP
VOLUME TREAT., MG	-	5.4
% TREATED	-	68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	96.9
SUSP. SOLIDS, LBS.	-	1,080.9
BOD ₅ , LBS.	-	150.5

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	102	5.1
SUSP. SOLIDS, LBS.	1201	120.1
BOD ₅ , LBS.	177	26.5

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.5	1.5
SUSP. SOLIDS mg/l	18.2	18.2
BOD ₅ mg/l	2.7	2.7

AFTER TREATMENT

SETT. SOLIDS mg/l	1.5	0.08
SUSP. SOLIDS mg/l	18.2	1.8
BOD ₅ mg/l	2.7	0.4

TOTAL CAPITAL COST (\$)

-	200,000
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ANNUAL O&M COST (\$)

-	5,000
---	-------

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	1378	1378
REMOVED, LBS.	-	1231.4
% REMOVED	89.4	89.4

CAPITAL COSTS/% REMOVAL (\$)

-	2200
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TREATMENT COST (¢/1000 gals)

-	16.0
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STORMWATER MANAGEMENT SUMMARY

TAUNTON RIVER BASIN

TOWN	PEMBROKE		
URBAN DRAINAGE AREA			
YEAR	2000		
ACRES	244		
TOTAL STORM RUNOFF VOL.			
MIL. GAL.	6.4		
TOTAL STORMWATER POLLUTANTS			
SETT. SOLIDS, LBS.	47		
SUSP. SOLIDS, LBS.	569		
BOD ₅	84		
STORMWATER TREATMENT			
TREAT. DESCRIP.	NT	SP	
VOLUME TREAT., MG	-	4.4	
% TREATED	-	68.8	
POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	-	44.7	
SUSP. SOLIDS, LBS.	-	512.1	
BOD ₅ , LBS.	-	71.4	
POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	47	2.3	
SUSP. SOLIDS, LBS.	569	56.9	
BOD ₅ , LBS.	84	12.6	
AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	0.9	0.9	
SUSP. SOLIDS mg/l	10.7	10.7	
BOD ₅ mg/l	1.6	1.6	
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.9	0.04	
SUSP. SOLIDS mg/l	10.7	1.1	
BOD ₅ mg/l	1.6	0.2	
TOTAL CAPITAL COST (\$)	-	200,000	
ANNUAL O&M COST (\$)	-	5,000	
SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	653	653	
REMOVED, LBS.	-	583.5	
% REMOVED	-	89.4	
CAPITAL COSTS/% REMOVAL (\$)	-	2200	
TREATMENT COST (¢/1000 gals)	-	16.0	

STORMWATER MANAGEMENT SUMMARY

TAUNTON RIVER BASIN

TOWN	ROCKLAND
URBAN DRAINAGE AREA	
YEAR	2000
ACRES	40
TOTAL STORM RUNOFF VOL.	
MIL. GAL.	0.9
TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	7
SUSP. SOLIDS, LBS.	86
BOD ₅	13
STORMWATER TREATMENT	
TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-
POLLUTANT REMOVALS	
SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-
POLLUTANTS DISCHARGED	
SETT. SOLIDS, LBS.	7
SUSP. SOLIDS, LBS.	86
BOD ₅ , LBS.	13
AVG. POLLUTANT CONCENTRATIONS	
BEFORE TREATMENT	
SETT. SOLIDS mg/l	0.9
SUSP. SOLIDS mg/l	11.5
BOD ₅ mg/l	1.7
AFTER TREATMENT	
SETT. SOLIDS mg/l	0.9
SUSP. SOLIDS mg/l	11.5
BOD ₅ mg/l	1.7
TOTAL CAPITAL COST (\$)	
ANNUAL O&M COST (\$)	-
SUSP. SOLIDS + BOD ₅	
BEFORE TREATMENT, LBS.	99
REMOVED, LBS.	-
% REMOVED	-
CAPITAL COSTS/% REMOVAL (\$)	
TREATMENT COST (¢/1000 gals)	
	-

STORMWATER MANAGEMENT SUMMARY

TAUNTON RIVER BASIN

TOWN SHARON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	700

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	20.9

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	230
SUSP. SOLIDS, LBS.	2717
BOD ₅	399

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	14.3	14.3
% TREATED	68.4	68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	218.5	218.5
SUSP. SOLIDS, LBS.	2445.3	1766
BOD ₅ , LBS.	339.2	159.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	11.5	11.5
SUSP. SOLIDS, LBS.	271.7	951
BOD ₅ , LBS.	59.8	239.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.3	1.3
SUSP. SOLIDS mg/l	15.6	15.6
BOD ₅ mg/l	2.3	2.3
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.07	0.07
SUSP. SOLIDS mg/l	1.6	5.5
BOD ₅ mg/l	0.3	1.4

TOTAL CAPITAL COST (\$)	490,000	1,500,000
ANNUAL O&M COST (\$)	10,000	35,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	3,116	3,116
REMOVED, LBS.	2784.5	1925.6
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	5500	24,300
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TREATMENT COST (¢/1000 gals)	13.5	43.0
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TAUNTON RIVER BASIN

TOWN	STOUGHTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	820	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	30.1	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	545	
SUSP. SOLIDS, LBS.	6458	
BOD ₅	949	
STORMWATER TREATMENT		
TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	20.7	20.7
% TREATED	68.8	68.8
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	517.8	517.8
SUSP. SOLIDS, LBS.	5812.2	4197.7
BOD ₅ , LBS.	806.6	379.6
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	27.2	27.2
SUSP. SOLIDS, LBS.	645.8	2260.3
BOD ₅ , LBS.	142.4	569.4
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.2	2.2
SUSP. SOLIDS mg/l	25.7	25.7
BOD ₅ mg/l	3.8	3.8
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.6	9.0
BOD ₅ mg/l	0.6	2.3
TOTAL CAPITAL COST (\$)	625,000	1,800,000
ANNUAL O&M COST (\$)	15,000	50,000
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	7407	7407
REMOVED, LBS.	6118.8	4577.3
% REMOVED	89.4	61.8
CAPITAL COSTS/% REMOVAL (\$)	7,000	29,100
TREATMENT COST (¢/1000 gals)	12.5	38.0

STORMWATER MANAGEMENT SUMMARY

TAUNTON RIVER BASIN

TOWN WRENTHAM

URBAN DRAINAGE AREA

YEAR 2000

ACRES 1055

TOTAL STORM RUNOFF VOL.

MIL. GAL. 31.7

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 454

SUSP. SOLIDS, LBS. 5412

BOD₅ 796

STORMWATER TREATMENT

TREAT. DESCRIP.

SP

SMD

VOLUME TREAT., MG

21.7

21.7

% TREATED

68.4

68.4

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

431.3

431.3

SUSP. SOLIDS, LBS.

4870.8

3517.8

BOD₅, LBS.

676.6

318.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

22.7

22.7

SUSP. SOLIDS, LBS.

541.2

1894.2

BOD₅, LBS.

119.4

477.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.7

1.7

SUSP. SOLIDS mg/l

20.5

20.5

BOD₅ mg/l

3.0

3.0

AFTER TREATMENT

SETT. SOLIDS mg/l

0.09

0.09

SUSP. SOLIDS mg/l

2.0

7.2

BOD₅ mg/l

0.5

1.8

TOTAL CAPITAL COST (\$)

650,000

1,850,000

ANNUAL O&M COST (\$)

16,000

55,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

6208

6208

REMOVED, LBS.

5547.4

3836.2

% REMOVED

89.4

61.8

CAPITAL COSTS/% REMOVAL (\$)

7,300

29,900

TREATMENT COST (¢/1000 gals)

12.1

35.9

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH BACK RIVER

TOWN ABINGTON

URBAN DRAINAGE AREA

YEAR	2000
ACRES	95

TOTAL STORM RUNOFF VOL.

MIL. GAL.	2.3
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	17
SUSP. SOLIDS, LBS.	205
BOD ₅	30

STORMWATER TREATMENT

TREAT. DESCRIP.	NT
VOLUME TREAT., MG	-
% TREATED	-

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-
SUSP. SOLIDS, LBS.	-
BOD ₅ , LBS.	-

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	17
SUSP. SOLIDS, LBS.	205
BOD ₅ , LBS.	30

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT	
SETT. SOLIDS mg/l	0.9
SUSP. SOLIDS mg/l	10.7
BOD ₅ mg/l	1.6
AFTER TREATMENT	
SETT. SOLIDS mg/l	0.9
SUSP. SOLIDS mg/l	10.7
BOD ₅ mg/l	1.6

TOTAL CAPITAL COST (\$)

ANNUAL O&M COST (\$)

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	235
REMOVED, LBS.	-
% REMOVED	-

CAPITAL COSTS/% REMOVAL (\$)

TREATMENT COST (¢/1000 gals)

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH BACK RIVER

TOWN	BRAINTREE	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	48	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	1.2	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	12	
SUSP. SOLIDS, LBS.	141	
BOD ₅	21	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	12	
SUSP. SOLIDS, LBS.	141	
BOD ₅ , LBS.	21	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	
SUSP. SOLIDS mg/l	14.1	
BOD ₅ mg/l	2.1	
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.2	
SUSP. SOLIDS mg/l	14.1	
BOD ₅ mg/l	2.1	
TOTAL CAPITAL COST (\$)	-	
ANNUAL O&M COST (\$)	-	
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	162	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)	-	
TREATMENT COST (¢/1000 gals)	-	

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH BACK RIVER

TOWN HINGHAM

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1549

TOTAL STORM RUNOFF VOL.

MIL. GAL.	48.8
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	916
SUSP. SOLIDS, LBS.	10875
BOD ₅	1600

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	34.4	34.4
% TREATED	68.7	68.7

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.		
SUSP. SOLIDS, LBS.	9787.5	7068.7
BOD ₅ , LBS.	1360	640

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	45.8	45.8
SUSP. SOLIDS, LBS.	1087.5	3806.3
BOD ₅ , LBS.	240	960

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.3	2.3
SUSP. SOLIDS mg/l	26.7	26.7
BOD ₅ mg/l	3.9	3.9
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.1	0.1
SUSP. SOLIDS mg/l	2.7	9.4
BOD ₅ mg/l	0.6	2.4

TOTAL CAPITAL COST (\$)

875,000	2,250,000
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ANNUAL O&M COST (\$)

25,000	80,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	12475	12475
REMOVED, LBS.	11147.5	7708.7
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

9,800	36,400
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TREATMENT COST (¢/1000 gals)

11.2	30.8
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STORMWATER MANAGEMENT SUMMARY

WEYMOUTH BACK RIVER

TOWN	HOLBROOK	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	64	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	1.9	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	17	
SUSP. SOLIDS, LBS.	203	
BOD ₅	30	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		17
SUSP. SOLIDS, LBS.		203
BOD ₅ , LBS.		30
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.1
SUSP. SOLIDS mg/l		13.5
BOD ₅ mg/l		2.0
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.1
SUSP. SOLIDS mg/l		13.5
BOD ₅ mg/l		2.0
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		233
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH BACK RIVER

TOWN ROCKLAND

URBAN DRAINAGE AREA

YEAR	2000
ACRES	459

TOTAL STORM RUNOFF VOL.

MIL. GAL.	15.9
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	191
SUSP. SOLIDS, LBS.	2240
BOD ₅	329

STORMWATER TREATMENT

TREAT. DESCRIP.	NT	SP
VOLUME TREAT., MG	-	10.9
% TREATED	-	68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	-	181.5
SUSP. SOLIDS, LBS.	-	2016
BOD ₅ , LBS.	-	279.6

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	191	9.5
SUSP. SOLIDS, LBS.	2240	224
BOD ₅ , LBS.	329	49.4

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.4	1.4
SUSP. SOLIDS mg/l	16.9	16.9
BOD ₅ mg/l	2.5	2.5
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.4	0.07
SUSP. SOLIDS mg/l	16.9	1.7
BOD ₅ mg/l	2.5	0.4

TOTAL CAPITAL COST (\$)

-	375,000
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ANNUAL O&M COST (\$)

-	9,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	2569	2569
REMOVED, LBS.	-	2295.6
% REMOVED	-	89.4

CAPITAL COSTS/% REMOVAL (\$)

-	4200
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TREATMENT COST (¢/1000 gals)

-	14.0
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STORMWATER MANAGEMENT SUMMARY

WEYMOUTH BACK RIVER

TOWN WEYMOUTH

URBAN DRAINAGE AREA

YEAR	2000
ACRES	4485

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	146.8

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	2071
SUSP. SOLIDS, LBS.	24599
BOD ₅	3616

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	100.6	100.6
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1967.5	1863.9
SUSP. SOLIDS, LBS.	22139.1	15989.4
BOD ₅ , LBS.	3073.6	1446.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	103.5	207.1
SUSP. SOLIDS, LBS.	2459.9	8906.6
BOD ₅ , LBS.	542.4	2169.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	20.1	20.1
BOD ₅ mg/l	3.0	3.0
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.08	0.2
SUSP. SOLIDS mg/l	2.0	7.0
BOD ₅ mg/l	0.4	1.8

TOTAL CAPITAL COST (\$)	2,000,000	4,250,000
ANNUAL O&M COST (\$)	75,000	235,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	28215	28215
REMOVED, LBS.	25212.7	17435.8
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	22,400	68,800
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TREATMENT COST (¢/1000 gals)	8.8	22.1
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STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN AVON

URBAN DRAINAGE AREA

YEAR 2000

ACRES 169

TOTAL STORM RUNOFF VOL.

MIL. GAL. 5.1

TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS. 61

SUSP. SOLIDS, LBS. 725

BOD₅ 107

STORMWATER TREATMENT

TREAT. DESCRIP.

NT

SP

VOLUME TREAT., MG

-

3.5

% TREATED

-

68.6

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.

-

58

SUSP. SOLIDS, LBS.

-

652.5

BOD₅, LBS.

-

91

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.

61

3

SUSP. SOLIDS, LBS.

725

72.5

BOD₅, LBS.

107

16

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l

1.4

1.4

SUSP. SOLIDS mg/l

17.0

17.0

BOD₅ mg/l

2.5

2.5

AFTER TREATMENT

SETT. SOLIDS mg/l

1.4

0.07

SUSP. SOLIDS mg/l

17.0

1.7

BOD₅ mg/l

2.5

0.4

TOTAL CAPITAL COST (\$)

-

190,000

ANNUAL O&M COST (\$)

-

4,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.

832

832

REMOVED, LBS.

-

743.5

% REMOVED

-

89.4

CAPITAL COSTS/% REMOVAL (\$)

-

2,100

TREATMENT COST (¢/1000 gals)

-

20.4

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN BRAINTREE

URBAN DRAINAGE AREA

YEAR	2000
ACRES	5177

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	183.2

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	3756
SUSP. SOLIDS, LBS.	44609
BOD ₅	6559

STORMWATER TREATMENT			
TREAT. DESCRIP.	SP	SMD	MD
VOLUME TREAT., MG	125.6	125.6	125.6
% TREATED	68.6	68.6	68.6

POLLUTANT REMOVALS			
SETT. SOLIDS, LBS.	3568.2	3568.2	3380.4
SUSP. SOLIDS, LBS.	40148.1	28995.8	20074
BOD ₅ , LBS.	5575.2	2623.6	1311.8

POLLUTANTS DISCHARGED			
SETT. SOLIDS, LBS.	187.8	187.8	375.6
SUSP. SOLIDS, LBS.	4460.9	15613.2	24535
BOD ₅ , LBS.	983.8	3935.4	5247.2

AVG. POLLUTANT CONCENTRATIONS			
BEFORE TREATMENT			
SETT. SOLIDS mg/l	2.5	2.5	2.5
SUSP. SOLIDS mg/l	29.2	29.2	29.2
BOD ₅ mg/l	4.3	4.3	4.3
AFTER TREATMENT			
SETT. SOLIDS mg/l	0.1	0.1	0.2
SUSP. SOLIDS mg/l	2.9	10.2	16.1
BOD ₅ mg/l	0.6	2.6	3.4

TOTAL CAPITAL COST (\$)	2,400,000	4,850,000	18,500,000
ANNUAL O&M COST (\$)	93,000	290,000	925,000

SUSP. SOLIDS + BOD ₅			
BEFORE TREATMENT, LBS.	51168	51168	51168
REMOVED, LBS.	45723.3	31619.4	21,385.8
% REMOVED	89.4	61.8	41.8

CAPITAL COSTS/% REMOVAL (\$)	26,800	78,500	443,000
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TREATMENT COST (¢/1000 gals)	8.5	21.0	73.0
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STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN	BROCKTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	44	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	1.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	10	
SUSP. SOLIDS, LBS.	119	
BOD ₅	17	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	10	
SUSP. SOLIDS, LBS.	119	
BOD ₅ , LBS.	17	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.2	
SUSP. SOLIDS mg/l	14.3	
BOD ₅ mg/l	2.0	
AFTER TREATMENT		
SETT. SOLIDS mg/l	1.2	
SUSP. SOLIDS mg/l	14.3	
BOD ₅ mg/l	2.0	
TOTAL CAPITAL COST (\$)	-	
ANNUAL O&M COST (\$)	-	
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	136	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)	-	
TREATMENT COST (¢/1000 gals)	-	

STORMWATER MANAGEMENT SUMMARY

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WEYMOUTH FORE RIVER BASIN

TOWN	CANTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	108	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	2.8	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	39	
SUSP. SOLIDS, LBS.	467	
BOD ₅	69	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.		39
SUSP. SOLIDS, LBS.		467
BOD ₅ , LBS.		69
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l		1.7
SUSP. SOLIDS mg/l		20.0
BOD ₅ mg/l		3.0
AFTER TREATMENT		
SETT. SOLIDS mg/l		1.7
SUSP. SOLIDS mg/l		200
BOD ₅ mg/l		3.0
TOTAL CAPITAL COST (\$)		-
ANNUAL O&M COST (\$)		-
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.		536
REMOVED, LBS.		-
% REMOVED		-
CAPITAL COSTS/% REMOVAL (\$)		-
TREATMENT COST (¢/1000 gals)		-

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN HOLBROOK

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1723

TOTAL STORM RUNOFF VOL.

MIL. GAL.	60.9
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TOTAL STORMWATER POLLUTANTS

SETT. SOLIDS, LBS.	947
SUSP. SOLIDS, LBS.	11230
BOD ₅	1651

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	41.7	41.7
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	899.6	899.6
SUSP. SOLIDS, LBS.	10107	7299.5
BOD ₅ , LBS.	1403.4	660.4

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	47.4	47.4
SUSP. SOLIDS, LBS.	1123	3930.5
BOD ₅ , LBS.	247.6	990.6

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.9	1.9
SUSP. SOLIDS mg/l	22.1	22.1
BOD ₅ mg/l	3.3	3.3

AFTER TREATMENT

SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.2	7.7
BOD ₅ mg/l	0.5	2.0

TOTAL CAPITAL COST (\$)

1,040,000	2,525,000
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ANNUAL O&M COST (\$)

31,000	100,000
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SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	12881	12881
REMOVED, LBS.	11510.4	7959.9
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)

11,600	40,900
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TREATMENT COST (\$/1000 gals)

10.3	27.5
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STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN	MILTON	
URBAN DRAINAGE AREA		
YEAR	2000	
ACRES	112	
TOTAL STORM RUNOFF VOL.		
MIL. GAL.	3.0	
TOTAL STORMWATER POLLUTANTS		
SETT. SOLIDS, LBS.	57	
SUSP. SOLIDS, LBS.	678	
BOD ₅	100	
STORMWATER TREATMENT		
TREAT. DESCRIP.		NT
VOLUME TREAT., MG		-
% TREATED		-
POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.		-
SUSP. SOLIDS, LBS.		-
BOD ₅ , LBS.		-
POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	57	
SUSP. SOLIDS, LBS.	678	
BOD ₅ , LBS.	100	
AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	2.3	
SUSP. SOLIDS mg/l	27.1	
BOD ₅ mg/l	4.0	
AFTER TREATMENT		
SETT. SOLIDS mg/l	2.3	
SUSP. SOLIDS mg/l	27.1	
BOD ₅ mg/l	4.0	
TOTAL CAPITAL COST (\$)	-	
ANNUAL O&M COST (\$)	-	
SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	778	
REMOVED, LBS.	-	
% REMOVED	-	
CAPITAL COSTS/% REMOVAL (\$)	-	
TREATMENT COST (¢/1000 gals)	-	

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN	QUINCY			
URBAN DRAINAGE AREA				
YEAR	2000			
ACRES	2920			
TOTAL STORM RUNOFF VOL.				
MIL. GAL.	113.8			
TOTAL STORMWATER POLLUTANTS				
SETT. SOLIDS, LBS.	2168			
SUSP. SOLIDS, LBS.	25600			
BOD ₅	3763			
STORMWATER TREATMENT				
TREAT. DESCRIP.	SP	SMD	MD	
VOLUME TREAT., MG	78.0	78.0	78.0	
% TREATED	68.5	68.5	68.5	
POLLUTANT REMOVALS				
SETT. SOLIDS, LBS.	2059.6	2059.6	1951.2	
SUSP. SOLIDS, LBS.	23040	16640	11520	
BOD ₅ , LBS.	3198.5	1505.2	752.6	
POLLUTANTS DISCHARGED				
SETT. SOLIDS, LBS.	108.4	108.4	216.8	
SUSP. SOLIDS, LBS.	2560	8960	14080	
BOD ₅ , LBS.	564.5	2257.8	3010.4	
AVG. POLLUTANT CONCENTRATIONS				
BEFORE TREATMENT				
SETT. SOLIDS mg/l	2.3	2.3	2.3	
SUSP. SOLIDS mg/l	27.0	27.0	27.0	
BOD ₅ mg/l	4.0	4.0	4.0	
AFTER TREATMENT				
SETT. SOLIDS mg/l	0.1	0.1	0.2	
SUSP. SOLIDS mg/l	2.7	9.4	14.8	
BOD ₅ mg/l	0.6	2.4	3.2	
TOTAL CAPITAL COST (\$)	1,650,000	3,625,000	11,500,000	
ANNUAL O&M COST (\$)	58,000	185,000	575,000	
SUSP. SOLIDS + BOD ₅				
BEFORE TREATMENT, LBS.	29363	29363	29363	
REMOVED, LBS.	26238.5	18145.2	12272.6	
% REMOVED	89.4	61.8	41.8	
CAPITAL COSTS/% REMOVAL (\$)	18,500	58,700	275,000	
TREATMENT COST (¢/1000 gals)	9.1	23.5	73.9	

STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN RANDOLPH

URBAN DRAINAGE AREA

YEAR	2000
ACRES	3845

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	121.1

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	1711
SUSP. SOLIDS, LBS.	20385
BOD ₅	2997

STORMWATER TREATMENT

TREAT. DESCRIP.	SP	SMD
VOLUME TREAT., MG	83.0	83.0
% TREATED	68.5	68.5

POLLUTANT REMOVALS

SETT. SOLIDS, LBS.	1625.5	1625.5
SUSP. SOLIDS, LBS.	18346.5	13250.2
BOD ₅ , LBS.	2547.5	1198.8

POLLUTANTS DISCHARGED

SETT. SOLIDS, LBS.	85.5	85.5
SUSP. SOLIDS, LBS.	2038.5	7134.8
BOD ₅ , LBS.	449.5	1798.2

AVG. POLLUTANT CONCENTRATIONS

BEFORE TREATMENT

SETT. SOLIDS mg/l	1.7	1.7
SUSP. SOLIDS mg/l	20.2	20.2
BOD ₅ mg/l	3.0	3.0

AFTER TREATMENT

SETT. SOLIDS mg/l	0.08	0.08
SUSP. SOLIDS mg/l	2.0	7.1
BOD ₅ mg/l	0.4	1.8

TOTAL CAPITAL COST (\$)	1,745,000	3,750,000
ANNUAL O&M COST (\$)	62,000	193,000

SUSP. SOLIDS + BOD₅

BEFORE TREATMENT, LBS.	23382	23382
REMOVED, LBS.	20894	14449
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	19,500	60,700
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TREATMENT COST (¢/1000 gals)	9.0	23.2
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STORMWATER MANAGEMENT SUMMARY

WEYMOUTH FORE RIVER BASIN

TOWN WEYMOUTH

URBAN DRAINAGE AREA

YEAR	2000
ACRES	1489

TOTAL STORM RUNOFF VOL.	
MIL. GAL.	49.8

TOTAL STORMWATER POLLUTANTS	
SETT. SOLIDS, LBS.	754
SUSP. SOLIDS, LBS.	8989
BOD ₅	1322

STORMWATER TREATMENT	SP	SMD
TREAT. DESCRIP.		
VOLUME TREAT., MG	34.1	34.1
% TREATED	68.5	68.5

POLLUTANT REMOVALS		
SETT. SOLIDS, LBS.	716.3	716.3
SUSP. SOLIDS, LBS.	8090.1	5842.8
BOD ₅ , LBS.	1123.7	528.8

POLLUTANTS DISCHARGED		
SETT. SOLIDS, LBS.	37.7	37.7
SUSP. SOLIDS, LBS.	898.9	3146.2
BOD ₅ , LBS.	198.3	793.4

AVG. POLLUTANT CONCENTRATIONS		
BEFORE TREATMENT		
SETT. SOLIDS mg/l	1.8	1.8
SUSP. SOLIDS mg/l	21.6	21.6
BOD ₅ mg/l	3.2	3.2
AFTER TREATMENT		
SETT. SOLIDS mg/l	0.09	0.09
SUSP. SOLIDS mg/l	2.2	7.6
BOD ₅ mg/l	0.5	1.9

TOTAL CAPITAL COST (\$)	875,000	2,250,000
ANNUAL O&M COST (\$)	25,000	80,000

SUSP. SOLIDS + BOD ₅		
BEFORE TREATMENT, LBS.	10311	10311
REMOVED, LBS.	9213.8	6371.6
% REMOVED	89.4	61.8

CAPITAL COSTS/% REMOVAL (\$)	9,800	36,900
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TREATMENT COST (¢/1000 gals)	11.2	30.8
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